

# DRAFT ACTION PLAN FOR DISASTER RECOVERY

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## 2015 FLOOD EVENTS



CITY OF HOUSTON  
SYLVESTER TURNER, MAYOR

HOUSING AND COMMUNITY DEVELOPMENT DEPARTMENT

TOM MCCASLAND, INTERIM DIRECTOR

DRAFT AUGUST 2016

THIS DOCUMENT IS SUBJECT TO CHANGE UPON RECEIPT OF ADDITIONAL DATA,  
INFORMATION AND PUBLIC COMMENT

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Draft Action Plan for Disaster Recovery 2015 Flood Events

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## INTRODUCTION/BACKGROUND

In 2015, Houston experienced two major flooding events. These flooding events became presidentially declared disasters and affected homes, businesses, infrastructure, and the citizens of Houston. The first major flooding event occurred in May and has come to be known as the "Memorial Day Flood" (Disaster No. 4223). The second flooding event occurred in October, and has also taken on the informal title of the "Halloween Flood" (Disaster No. 4245). Each event vastly impacted the Houston area, and some properties actually experienced damages from both events.

As a result of these flooding events, Houston received an allocation (Pub. Law 114-113) of Community Development Block Grant Disaster Recovery funding (CDBG-DR15). To fulfill the requirements to receive this allocation, the City must create and submit an Action Plan for Disaster Recovery (Plan) to the US Department of Housing and Urban Development (HUD). This Plan must identify the unmet need associated with these disasters and identify how this funding will be used for recovery and resiliency activities for the benefit of low- to moderate-income residents in impacted areas. This Plan serves as our formal application for CDBG-DR15 funding.

### Memorial Day Flood

Heavy downfalls reaching record levels led to the devastation during storms that began on May 4, 2015, where rainfall reports totaled as much as 10 inches of rain falling overnight and measurements reported 12 inches of rain falling on areas of the City in only ten hours<sup>1</sup>. Lives were lost, approximately 800 cars were stranded on the highways surrounding Houston,<sup>2</sup> and more than 80,000 Houstonians were without power at one point during the storms. The record-breaking rainfall closed portions of I-10 and I-45.<sup>3</sup>

### Halloween Flood

As recovery began to take shape in the months following the Memorial Day Flood, the City was brought to a standstill yet again with another catastrophic flooding event only 6 months later. Not only did the City face a major setback to its recovery, the City again experienced significant damage as a result of the storms. During the Halloween flooding event, from October 30 through November 1, 2015, as much as 12 inches of rainfall fell on the City,<sup>4</sup> leaving 202 streets flooded<sup>5</sup> and 47,000 homes reporting power outages at some time during the storms.<sup>6</sup>

### Combined Flood Damages

Over 12,000 homes were damaged affecting over 36,000 people in Harris and Fort Bend Counties.<sup>7</sup>

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<sup>1</sup> Houston Chronicle, "Remembering Houston's Memorial Day Floods", <http://www.chron.com/houston/article/Remembering-Houston-s-Memorial-Day-floods-7944644.php> by: Jessica Hamilton

<sup>2</sup> [http://www.nytimes.com/2015/05/27/us/texas-rains-bring-flooding-to-houston-area.html?\\_r=0](http://www.nytimes.com/2015/05/27/us/texas-rains-bring-flooding-to-houston-area.html?_r=0)

<sup>3</sup> NBC News, Alexander Smith, Shamar Walters, & Henry Austin, "Houston, Texas, hit by Unprecedented Flooding; Seven States At Risk", <http://www.nbcnews.com/news/weather/houston-texas-hit-unprecedented-flooding-seven-states-risk-n364456>

<sup>4</sup> Houston Chronicle, Harvey Rice, Fauzeya Rahman, & Daniel Perez, "Storms subside but rescues continue; 2 dead", <http://www.chron.com/houston/article/Overnight-rain-leaves-cars-stranded-kids-worried-6602509.php>

<sup>5</sup> Houston Chronicle, Jaimy Jones, "Map shows flood damage in Houston", <http://www.chron.com/news/article/Map-shows-flood-damage-in-Houston-6606313.php>

<sup>6</sup> Houston Chronicle, Harvey Rice, Fauzeya Rahman, & Daniel Perez, "Storms subside but rescues continue; 2 dead", <http://www.chron.com/houston/article/Overnight-rain-leaves-cars-stranded-kids-worried-6602509.php>

<sup>7</sup> Greater Houston Storm Recovery Network, "Quick Facts", [www.houstonfloodrecovery.org](http://www.houstonfloodrecovery.org)

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**Allocation**

Based on a review of the impacts from these disasters, and estimates of unmet need, HUD has made the following allocations in Texas, for federal disasters 4223 and 4245.

Grantee	Amount	Minimum amount that must be expended in HUD identified "most impacted" areas identified
Houston	\$66,560,000	(\$66,560,000) City of Houston
San Marcos	\$25,080,000	(\$25,080,000) City of San Marcos
State of Texas	\$50,696,000	(\$50,696,000) Harris, Hays, Hidalgo, and Travis Counties

The allocation shown above, for the City of Houston, provides funds for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas resulting from the major disasters declared in 2015.

On July 22, 2016, the City submitted Risk Analysis Documentation and an Implementation Plan, to demonstrate that the City can effectively manage these funds, ensure timely expenditure of these funds, maintain a comprehensive website regarding all activities assisted with these funds, and ensure timely communication of application status to applicants for disaster recovery assistance, as applicable.

Creating this Action Plan is the next step in the application process. This streamlined Action Plan for Disaster Recovery allows grantees to quickly implement disaster recovery programs, while conforming to applicable requirements.

The City has prepared this Draft Action Plan for Disaster Recovery to allow citizens to have an opportunity to participate and comment on its development.

**Citizen Participation and Comment Period**

This Draft Action Plan is available to the public for a 14-day comment period beginning on August 9, 2016 and ending August 23, 2016. This comment period is intended to gather citizen input before City Council adopts the final Action Plan.

For the duration of the CDBG-DR15 grant period, the City will maintain a website for CDBG-DR15 documents and information at: [http://houstontx.gov/housing/2015\\_Flood\\_Events\\_Recovery.html](http://houstontx.gov/housing/2015_Flood_Events_Recovery.html). This website will provide links to a comprehensive list of documents, as they come available, including: the Action Plan, Quarterly Performance Reports, procurement policies, and executed CDBG-DR contracts. Links to this webpage, which includes a link to the Draft Action Plan, are available on the on the City's main webpage: [www.houstontx.gov](http://www.houstontx.gov) and HCDD's main webpage: [www.houstontx.gov/housing](http://www.houstontx.gov/housing).

Printed copies of the Draft Action Plan are available at the Main Public Library (500 McKinney, 77002) and HCDD's Office (601 Sawyer, Suite 400, 77007). Copies of the Draft Action Plan are available at HCDD's Office, upon request.

A digital copy of the Draft Action Plan is available: [http://houstontx.gov/housing/2015\\_Flood\\_Events\\_Recovery.html](http://houstontx.gov/housing/2015_Flood_Events_Recovery.html). This website also lists contact information in English, Spanish, Vietnamese, Chinese, Urdu, and Arabic, to ensure accessibility of the Draft Action Plan for persons with limited English proficiency or with a disability. The Draft Action Plan, or a summary, will be translated to other languages or made accessible for persons with disabilities, as requested.

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A summary of the Draft Action Plan was printed in the *Houston Chronicle* and *La Voz* (in Spanish) on August 9, 2016 with information about how to submit a written comment and information about the public hearing. The public hearing notice was originally posted in the *Houston Chronicle* and *La Voz* (in Spanish) on August 3, 2016. Information about the comment period and public hearing for the Draft Action Plan was also available in the following news sources: *Southern Chinese Daily News* (in Chinese), *Houston Forward Times*, *African American News and Issues*, *Viet Nam Moi* (in Vietnamese), and *Southwest News*. The City also sent information about the comment period and public hearing to several thousand people through CitizensNet and sent over 600 invitations via e-mail to HCDD's database of stakeholders and interested citizens. Information about the comment period and the public hearing will be posted on HCDD's social media outlets, including Facebook and Twitter.

The public hearing for the Draft Action Plan will be held at City Hall Annex (900 Bagby, 77002) on Thursday, August 18, 2016. The venue is accessible for persons with disabilities. A Spanish interpreter and CART captioning for the hearing impaired will be available at the public hearing. Special arrangements for the public hearing are available upon request by email or telephone.

Comments of the Draft Action Plan are accepted in writing via email and mail during the 14-day public comment period. Comments will also be accepted in writing and verbally at the public hearing. A summary of citizen comments of the Draft Action Plan, along with HCDD's summary responses, will be available in the Appendix of this final document.

The Action Plan will be presented to the Housing and Community Affairs for input on Tuesday, August 23, 2016 and to City Council for approval on Wednesday, September 7, 2016.

## Consultation

Throughout the duration of the CDBG-DR15 grant, the City will continue its efforts to coordinate with other local and regional planning efforts. For instance, the City will reach out to its State and Federal partners when carrying out infrastructure improvements. The City will also review various plans related to infrastructure from local organizations and governmental entities, like the Harris County Flood Control District, when pursuing various projects. As with the development of this Action Plan, the City will continue to refer to existing local plans, such as the City's Storm Water Management Plan, the City's Capital Improvement Plan, the City's Hazard Mitigation Action Plan, and HGAC's Regional Mitigation Plan, to ensure activities will best benefit areas impacted by the 2015 flooding events.

During the summer of 2016, the City conducted outreach to gather information and data, inform stakeholders about the post-storm efforts, and collect feedback from impacted households and community partners. Information and data was used to inform the development of the needs assessment in this Action Plan. Data was gathered from various City Departments, other jurisdictions, the Houston Housing Authority, and other governmental and nongovernmental entities. Information gathered immediately after the storms from Crisis Cleanup and the United Way's 2-1-1 Call Center was also used to inform the needs assessment.

These and other stakeholders, as well as citizens from affected areas were invited to comment on the Draft Action Plan for Disaster Recovery and to attend a public hearing on August 18, 2016. Feedback from the comment period and the public hearing was used to inform and finalize the Action Plan.

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## Impact of Unmet Needs Assessment

### *Purpose*

It is the purpose of this assessment to evaluate the Housing, Infrastructure, and Economic impacts the Memorial Day and Halloween flooding events had on the City, and to calculate the remaining unmet need. Unmet need is calculated by estimating total impact and subtracting any funds made available for assistance or recovery thus far. Disaster recovery needs evolve over time and the needs assessment and action plan are expected to be amended as conditions change and additional needs are identified.

### *Resiliency and Strategic Planning*

The Houston area is vulnerable to and has been impacted by a wide variety of natural disasters including hurricanes, erosion, and flooding. However, the City of Houston is no stranger to bouncing back strongly from these events. Houston and its' residents have shown their resiliency time and time again when faced with such adversity. The Houston-Galveston Area Council's *Our Great Region 2040 Plan* outlines a number of ways in which Houston and surrounding areas are addressing resiliency.

The H-GAC's *Our Great Region 2040 Plan* addresses resiliency planning and areas of focus for the H-GAC region; the following list includes some of the steps being taken to address resiliency in the Houston area:

- Developing regional disaster defense systems, both structural and non-structural
- Developing better evacuation planning
- Developing rapid recovery plans for homes and businesses
- Creating education programs on natural disasters that could impact the area<sup>8</sup>

### *Household Resilience*

In addition, the City of Houston Office of Emergency Management has taken an active role in educating residents about the risks the city faces, and about how to ensure individual preparedness at the household level. This includes providing information to households about:

- Personal or household emergency plans, including being aware of evacuation zones and preparing for impacts on any special needs, such as medical or mobility-related assistance
- The importance of emergency supplies kits, including food, water and medications
- How and where to access information about disaster warnings and updates
- The importance of pre-planning and building a social network at the neighborhood level<sup>9</sup>

This household-level outreach is one component of the City's multifaceted and ongoing approach to planning around building local resilience. The City also conducts regular Hurricane & Emergency Preparedness Summits in conjunction with regional response agencies, planners, healthcare providers and other civic stakeholders to maintain a constant orientation around opportunities to reduce risk and vulnerability.<sup>10</sup> These areas of focus will help the City of Houston recover, prepare for the next disaster, and be even less susceptible to damages from similar disaster events in the future.

### *Demographic Profile of the Impacted Area*

The table on the following page comes from the *2015 American Community Survey (ACS)* from the US Census Bureau. Several factors taken into account in the ACS table give insight into particular vulnerable populations. Particularly, 9% of citizens are over the age of 65, 30.9% of citizens are without health insurance, 22.9% of citizens live under the poverty level, and 46.9% of Houstonians speak a language other than English at home. For full details

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<sup>8</sup> H-GAC Our Great Region 2040

<sup>9</sup> Office of Emergency Management, <http://www.houstongovnewsroom.org/go/doc/2155/2822106/>

<sup>10</sup> Office of Emergency Management, <http://www.houstongovnewsroom.org/go/doc/2155/2839278/>

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on the demographic makeup of the 2,296,224 citizens accounted for in the 2015 ACS Survey, see the table on the following page.

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People	Houston, Texas
<i>Population</i>	
Population estimates, July 1, 2015, (V2015)	2,296,224
<i>Age and Sex</i>	
Persons under 5 years, percent, April 1, 2010	8.10%
Persons under 18 years, percent, April 1, 2010	25.90%
Persons 65 years and over, percent, April 1, 2010	9.00%
<i>Race and Hispanic Origin</i>	
White alone, percent, April 1, 2010 (a)	50.50%
Black or African American alone, percent, April 1, 2010 (a)	23.70%
American Indian and Alaska Native alone, percent, April 1, 2010 (a)	0.70%
Asian alone, percent, April 1, 2010 (a)	6.00%
Native Hawaiian and Other Pacific Islander alone, percent, April 1, 2010 (a)	0.10%
Two or More Races, percent, April 1, 2010	3.30%
Hispanic or Latino, percent, April 1, 2010 (b)	43.80%
White alone, not Hispanic or Latino, percent, April 1, 2010	25.60%
<i>Population Characteristics</i>	
Foreign born persons, percent, 2010-2014	28.40%
<i>Housing</i>	
Housing units, April 1, 2010	892,646
Owner-occupied housing unit rate, 2010-2014	44.5
Median value of owner-occupied housing units, 2010-2014	\$125,400
Median gross rent, 2010-2014	\$862
<i>Families and Living Arrangements</i>	
Households, 2010-2014	792,763
Persons per household, 2010-2014	2.69
Language other than English spoken at home, percent of persons age 5 years+, 2010-2014	46.90%
<i>Education</i>	
High school graduate or higher, percent of persons age 25 years+, 2010-2014	75.90%
Bachelor's degree or higher, percent of persons age 25 years+, 2010-2014	29.80%
<i>Health</i>	
With a disability, under age 65 years, percent, 2010-2014	7.00%
Persons without health insurance, under age 65 years, percent	30.90%
<i>Economy</i>	
In civilian labor force, total, percent of population age 16 years+, 2010-2014	68.10%
<i>Income and Poverty</i>	
Median household income (in 2014 dollars), 2010-2014	\$45,728
Per capita income in past 12 months (in 2014 dollars), 2010-2014	\$27,938
Persons in poverty, percent	22.90%
Source: Demographic Profile Information - American Community Survey Data, 2015 Release	

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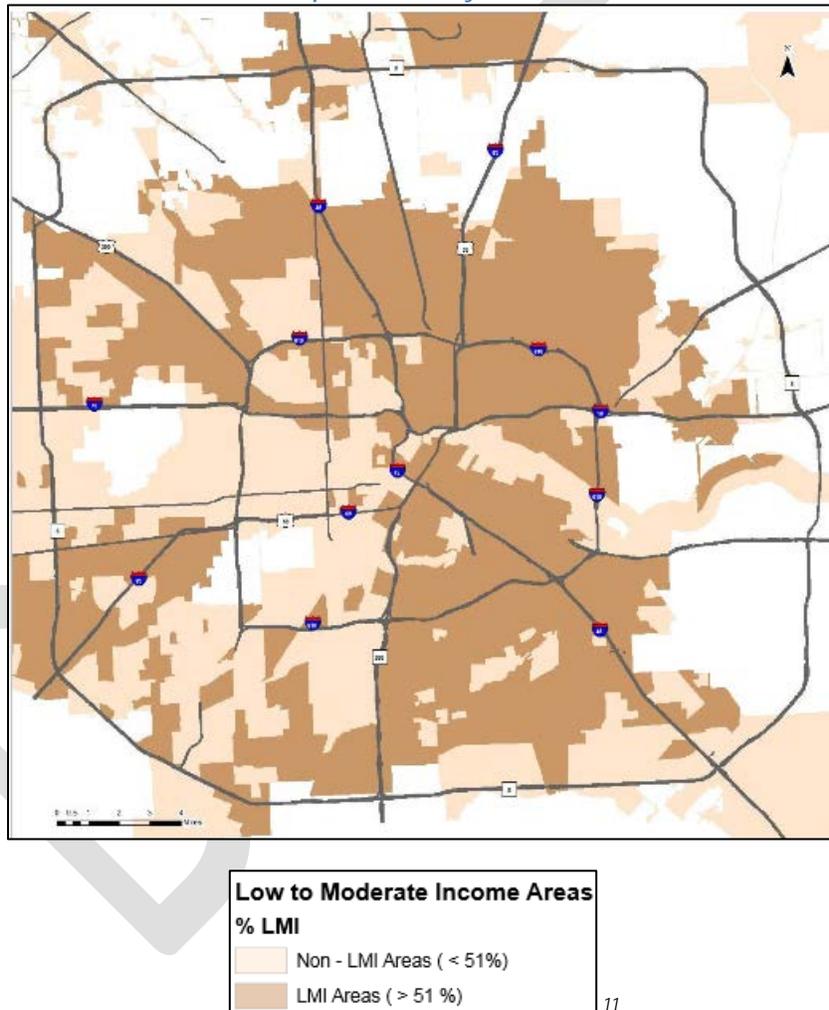
*Impact on Low-and-Moderate-Income Populations*

Any program using HUD Community Development Block Grant Disaster Recovery (CDBG-DR) assistance must meet one of the CDBG-DR program's National Objectives for any dollars spent. The National Objectives are:

- Benefitting low-and-moderate-income (LMI) persons
- Aiding in prevention or removal of slum and blight
- Meeting urgent need (definition set by HUD regulation)

LMI households are those that make annually, 80% or less of the area median income. The Table below shows the City areas with a majority of households meeting LMI criteria and was prepared by the Houston Housing and Community Development Department (HCDD).

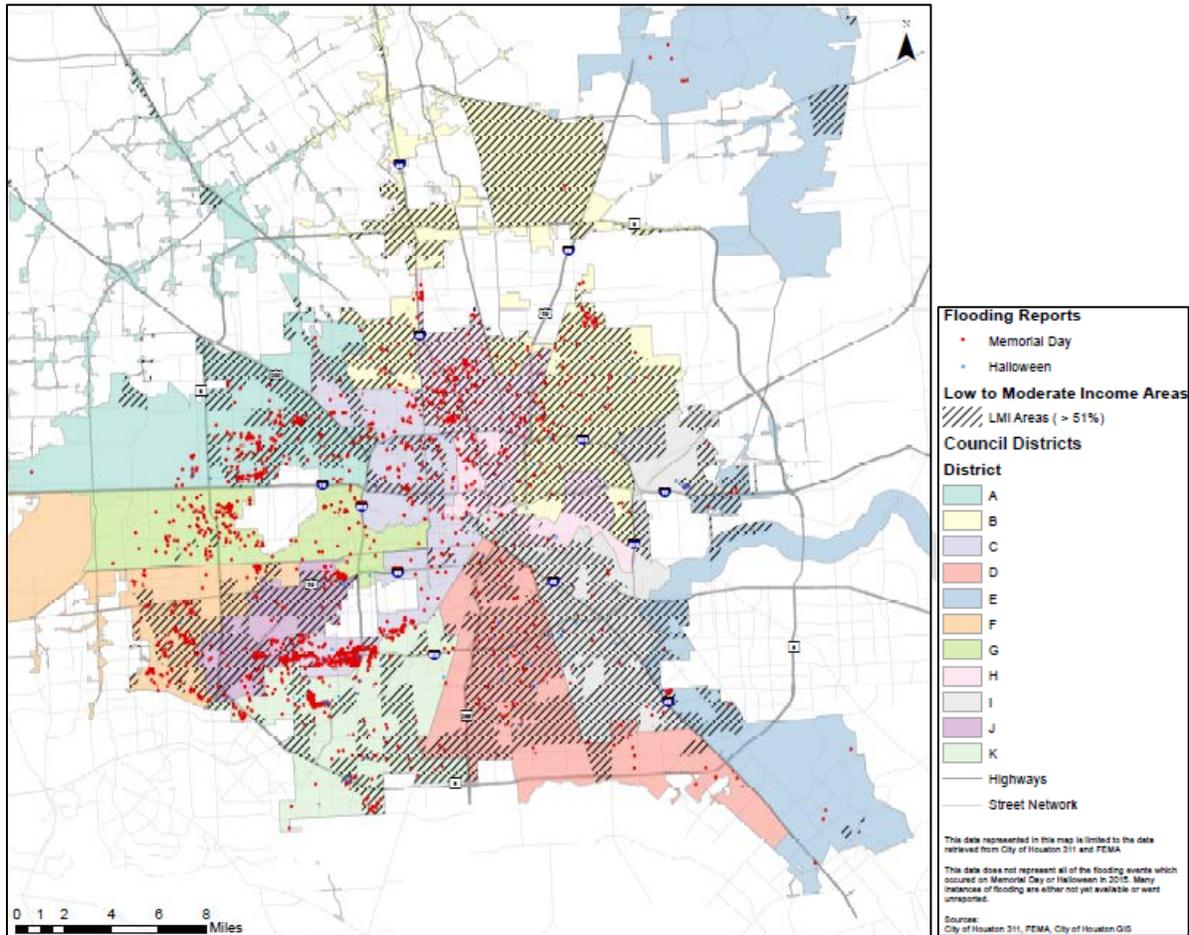
*LMI Populations: City of Houston*



<sup>11</sup> Houston Housing and Community Development Dept., Henson and Lozano

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2015: Memorial and Halloween Flooding Reports in LMI Areas<sup>12</sup>



The table above illustrates flooding reports and areas with over 51% of the residents of low to moderate income, to show which LMI populations experienced perhaps the most significant damages from the Memorial and Halloween flooding events.

<sup>12</sup> Houston Housing and Community Development Dept., Henson and Lozano

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*Impact on Special Needs Populations*

Special needs populations and those with functional needs may require special attention and help in receiving assistance and disaster resources. These special needs populations may consist of children, the elderly, pregnant women, those from diverse cultures, individuals lacking transportation means, individuals with chronic disorders or pharmacological dependencies, those with disabilities, living in institutions, unable to speak English, and the homeless<sup>13</sup>. Regardless of the functional need, it is vital that all efforts possible are made to ensure these individuals have the ability to access any available disaster recovery resources.

According to a 2015 Point-in-Time report from the Houston Coalition for the Homeless (and federally mandated by HUD), on any given night of January 2015 there were 4,609 homeless people in the Houston metro area, of which 4,355 were in Harris County and 254 were in Fort Bend County. Of these, approximately 36% are considered unsheltered<sup>14</sup>. Individuals such as these are at an increased risk due to lack of resources and shelter prior to the event.

Additionally, in regards to the population served through the City of Houston's Housing Opportunities for Persons with HIV/AIDS (HOPWA) Program, program managers confirmed that no HOPWA sites were specifically impacted by the Memorial and Halloween flood events<sup>15</sup>.

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<sup>13</sup> US Dept. of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response "Public Health Emergency"-<http://www.phe.gov/preparedness/planning/abc/pages/atrisk.aspx>

<sup>14</sup> Coalition for the Homeless, "Houston/Harris County/Fort Bend County Point-in-Time Count 2015 Executive Summary", <http://www.homelesshouston.org/wp-content/uploads/2015/06/2015-PIT-Executive-summary-final1.pdf>

<sup>15</sup> Confirmed with Houston Community Development Department,8/3/16

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*Emergency Shelters*

Critical in the temporary care of extremely impacted individuals is the use of emergency shelters. Emergency shelters offer temporary shelter and living arrangements for impacted citizens.

Following the Memorial Day flooding event, the American Red Cross stepped up to open several shelters across Houston to assist impacted residents and get them into safe environments as quickly as possible. The American Red Cross shelter locations are listed below:

- Chinese Community Center, 9800 Town Park Drive, Houston, TX 77036
- Acres Homes Multi-Service Center at 6719 W. Montgomery Rd., Houston, TX 77091
- American Legion Hall at 1630 Myer Rd., Sealy, TX 77474
- St. John Lutheran Church, 529 N. Holland, Bellville, TX 77418
- Woodville United Methodist Church at 508 West Bluff St., Woodville, TX
- Liberty County Community Center at 318 San Jacinto St., Liberty, TX 77575
- Wharton Junior High School Gymnasium at 1120 North Rusk St., Wharton, TX, 77488<sup>16</sup>

In addition, in October the American Red Cross set up an emergency shelter at:

- Channelview High School 1100 Sheldon Rd. Channelview, TX 77530<sup>17</sup>

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<sup>16</sup> Cooper, Nakia-Click2Houston News, 8 Confirmed Dead in Houston Area's Historic Flooding:  
<http://www.click2houston.com/news/8-confirmed-deaths-in-houston-areas-historic-flooding>

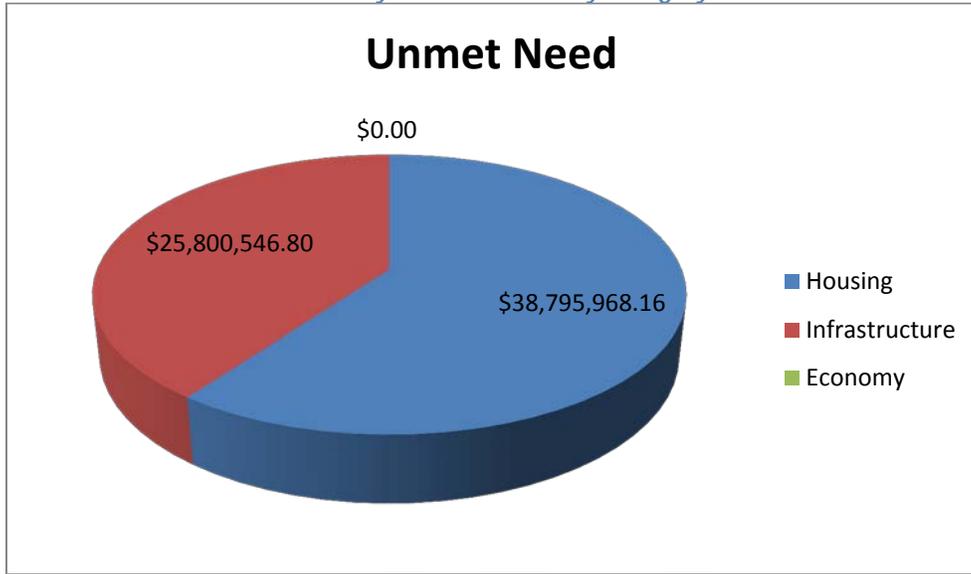
<sup>17</sup> Your Houston News, Additional Red Cross Shelters Opened to Assist Storm-Flood Victims:  
[http://www.yourhoustonnews.com/cleveland/news/additional-red-cross-shelters-opened-to-assist-storm-flood-victims/article\\_ac78c2c2-4215-5612-8291-0e7d7b47b177.html](http://www.yourhoustonnews.com/cleveland/news/additional-red-cross-shelters-opened-to-assist-storm-flood-victims/article_ac78c2c2-4215-5612-8291-0e7d7b47b177.html)

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**Summary of Impact and Unmet Need**

The Unmet Needs Assessment evaluates three areas of recovery: Housing, Infrastructure, and Economic Development. At this time, based on the best available data, **the total Unmet Need for the City of Houston is calculated at \$64,596,514.96**. This estimate is subject to change as data continues to be made available through various sources.

*Summary of Unmet Need by Category*



	Housing	Infrastructure	Economic
Unmet Need	\$38,795,968.16	\$25,800,546.80	\$0.00

The total estimated Unmet Need comes from adding the Housing, Infrastructure, and Economic Unmet Need amounts. The sections following this summary will outline each aspect of recovery (Housing, Infrastructure, and Economy), and give details as to the extent of damage and assistance received thus far, relating to the Memorial Day and Halloween flooding events in the City of Houston.

**Housing Unmet Need & Methodology**

In calculating the housing unmet need, it is vital to take the total housing impact and subtract the funds made available thus far. **The total housing impact for the City of Houston is estimated at \$174,454,059.37.**

Based on the best data currently available, at this time **the total funds made available for housing recovery for both the Memorial Day and Halloween flooding events is estimated at \$135,658,091.21.**

Thus, when the estimated funds made available (SBA Home Loans Memorial Day and Halloween floods \$44,177,900.00 and FEMA Estimates from May \$81,996,750.00 and Halloween floods \$9,483,441.21) are subtracted from the estimated housing impact, **the remaining unmet housing need is calculated as \$38,795,968.16.**

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The tables below outline the number used to make these unmet needs calculations and are followed by a description of the specific methodology.

	Total	Units	Average (IHP Max*)
FVL Estimate (Memorial Day Flood Units Only)	\$109,329,000.00	3313	\$33,000.00
Discount for Non-Max Payouts	0.75		
Estimated May Impact	\$81,996,750.00		
Halloween Floods IA Damage Estimate*	\$9,483,441.21		
SBA Home Loans (Memorial Day and Halloween Floods)	\$44,177,900	702	\$62,931.48
Memorial Day & Halloween Floods Estimate	\$91,480,191.21		
Multiplier	1.90701		
Housing Impact	\$174,454,059.37		
<p><i>*Note: for Halloween Flood Estimate, Citywide Units (789) was divided by Statewide Units (3,286) to calculate percentage of damaged units in Houston, and multiplied by Statewide IA Cost Estimate to estimate Halloween Flood IA Cost in Houston: See the table below for details.</i></p> <p><i>*Note: the FVL Estimate is calculated by multiplying the total units from the Memorial Day floods that received FEMA assistance, by the IHP Max.</i></p>			

The estimated impact was calculated using a housing multiplier. This multiplier was calculated by dividing the average SBA home loans associated with the Memorial Day and Halloween floods by the FEMA Individuals and Households Program (IHP) maximum amount of \$33,000. This number is used due to current data limitations which indicate the average FEMA FVL from the Memorial Day flooding event to be higher than the IHP maximum. A multiplier is used because it paints a more accurate picture of the damages received due to the fact that SBA loans are more-so intended to cover full damages as opposed to just getting resident's homes to safe and sanitary living conditions (which is what FEMA aims to do) and accounts for those who may have been deemed ineligible for FEMA assistance but still received damage. **For this assessment, the multiplier is 1.90701.**

To estimate total housing impact, the FEMA FVL units from Memorial Day flooding only, 3,313, was multiplied by the FEMA IPH max and reduced by 25% to account for those not receiving maximum assistance. This resulted in a Memorial Day flooding estimate of \$81,996,750 which was then added to the Halloween flood IA Damage estimate. The City Damage Estimate (Halloween flood) comes from the City/State Ratio (.2401) multiplied by the Statewide Damage Estimate: \$39,496,309 (based on the Statewide FEMA Damage Assessment). This comes from Statewide Units (3,286) divided by City Units (789). The City Units number comes from the Houston Office of Emergency Management's Disaster Summary Outline for the City of Houston based on the Halloween flooding. When the Statewide Damage Estimate is multiplied by the City to State ratio, the estimated Halloween flooding impact for Houston comes out to \$9,483,441.21. **When added to the estimated impact from Memorial Day flooding, the estimated total impact before applying the multiplier is \$91,480,191.21. When applying the multiplier the estimated impact as mentioned above is \$174,454,059.37.** No additional increases for resiliency were included in this calculation due to a higher than average assumption towards maximum IHP payout. The following table outlines the Halloween flooding estimate calculation, based on the best currently available information.

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**Housing Impact**

The housing impact from the Memorial Day and Halloween flooding events in the City of Houston was widespread, and also unique in many ways. Both single-family and multi-family residents, in various types of homes, were affected. Additionally, many homes experienced damages due to these flooding events despite being located outside of the floodplain. The table below represents those receiving FEMA Individual Assistance for the Memorial Day flooding event. As more complete data is made available, the Halloween flood FEMA Individual Assistance information will be added to this assessment.

FEMA FVL for Memorial Day Flooding <sup>18</sup>		
Housing Type	Sum of Total Paid	Sum of Losses
2-4 Family	\$1,966,966.79	42
Assmd. Condo	\$2,791,549.07	32
Non Resident	\$13,834,996.98	170
Other Resident	\$3,467,923.47	44
Single Family	\$124,040,872.66	3025
<b>Totals</b>	<b>\$146,102,308.97</b>	<b>3313</b>

**Housing Types Impacted**

As noted in the section and table(s) above, various types of homes and housing units were impacted. In the City of Houston, both single family and multifamily housing units were impacted by flooding.

Residential Losses: Memorial Day Flood, City of Houston <sup>19</sup> (Per OEM Disaster Summary Outline 6/17/15)					
Type of Homes	Affected	Minor Damage	Major Damage	Destroyed	% Covered by Insurance
Single Family Homes	309	827	930	2	60%
Mobile Homes	0	0	0	0	NA
Multifamily Units	3526	14	224	0	20%
<b>Totals</b>	<b>3835</b>	<b>841</b>	<b>1154</b>	<b>2</b>	<b>40%</b>

The table above, from the Houston *Office of Emergency Management's Disaster Summary Outline* for the Memorial Day flooding, shows that while a large number of multifamily units were affected, a much smaller portion received major damage. On the contrary, large numbers of single family homes experienced minor or major damage, while 2 were destroyed entirely. The table above shows that the total for homes affected, with minor or major damage, or destroyed comes out to 5,832 units for the Memorial Day flooding alone. This number is higher than the total that received FEMA FVL, 3,313; however, these types of discrepancies will be accounted for in the housing impact calculation by using a housing multiplier<sup>20</sup>.

**Residential Losses: Halloween Flood, City of Houston<sup>21</sup> (Per OEM Disaster Summary Outline 11/2/15)**

<sup>18</sup> FEMA IA Data from Houston Housing and Community Development Department

<sup>19</sup> *Houston OEM Disaster Summary Outline*

<sup>20</sup> *Houston OEM Disaster Summary Outline*

<sup>21</sup> Houston OEM

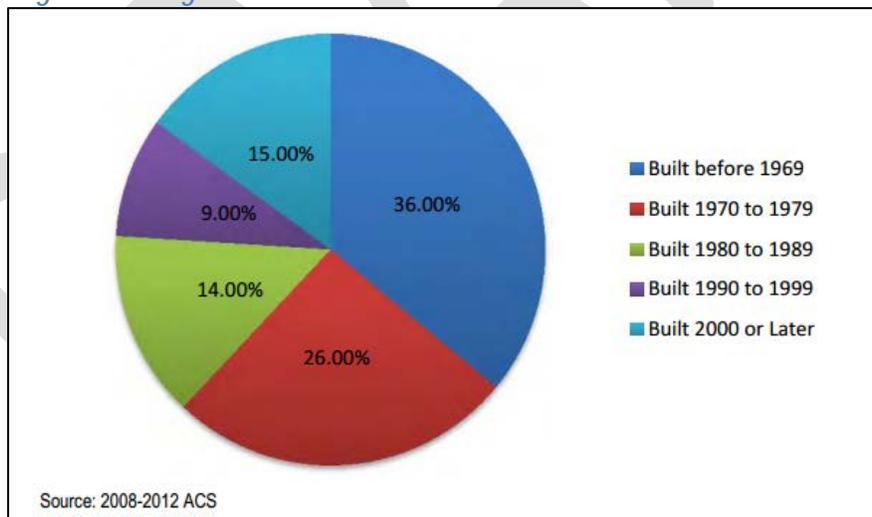
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Type of Homes	Affected	Minor Damage	Major Damage	Destroyed	% Covered by Insurance
Single Family Homes	56	291	124	0	40%
Mobile Homes	0	0	0	0	NA
Multi-Family Units	0	0	318	0	40%
<b>Totals</b>	<b>56</b>	<b>291</b>	<b>442</b>	<b>0</b>	<b>40%</b>

The table above, from the Houston Office of Emergency Management’s Disaster Summary Outline for the Halloween flooding, shows that a much smaller number of multifamily homes were affected in general as compared to the Memorial Day flood, but that many (318 units) experienced major damage. In regards to single family homes, 56 were affected, with 291 receiving minor damage, and 124 receiving major damage, while none were completely destroyed. The table also shows that the total for homes affected, with minor or major damage, or destroyed comes out to 789 for the Halloween flooding event. While FEMA FVL data is currently unavailable for the Halloween flooding event, this smaller number falls in line with the smaller number of SBA Disaster Home Loans sought following this event, as opposed to the Memorial Day flooding event.

According to the Houston-Galveston Area Council’s *Our Great Region 2040 Plan* (which also covers cities/counties in the surrounding areas), in the region, single family homes account for 71% of the homes in the H-GAC region, while multifamily homes account for just 29%<sup>22</sup>. Additionally, according to the *2013 American Housing Survey* from the US Census Bureau, the City of Houston has 2,392,000 total housing units. Of these, 1,328,900 are occupied by owners (55.6%), 823,400 are occupied by renters (34.4%), and 239,600 units are vacant or seasonal (10%)<sup>23</sup>.

*City of Houston: Age of Housing Stock*<sup>24</sup>



As noted in the chart above, from the Houston Housing and Community Development Department’s 2015 Analysis of Impediments to Fair Housing Choice shows that while there is a good percentage of new homes in the City of Houston (15% built after 2000), the largest percentage of homes (36%) were built prior to 1969. In events such as flooding, older homes may have more substantial damages or require more significant repairs.

<sup>22</sup> H-GAC, *Our Great Region 2040 Plan*

<sup>23</sup> *2013 American Housing Survey*

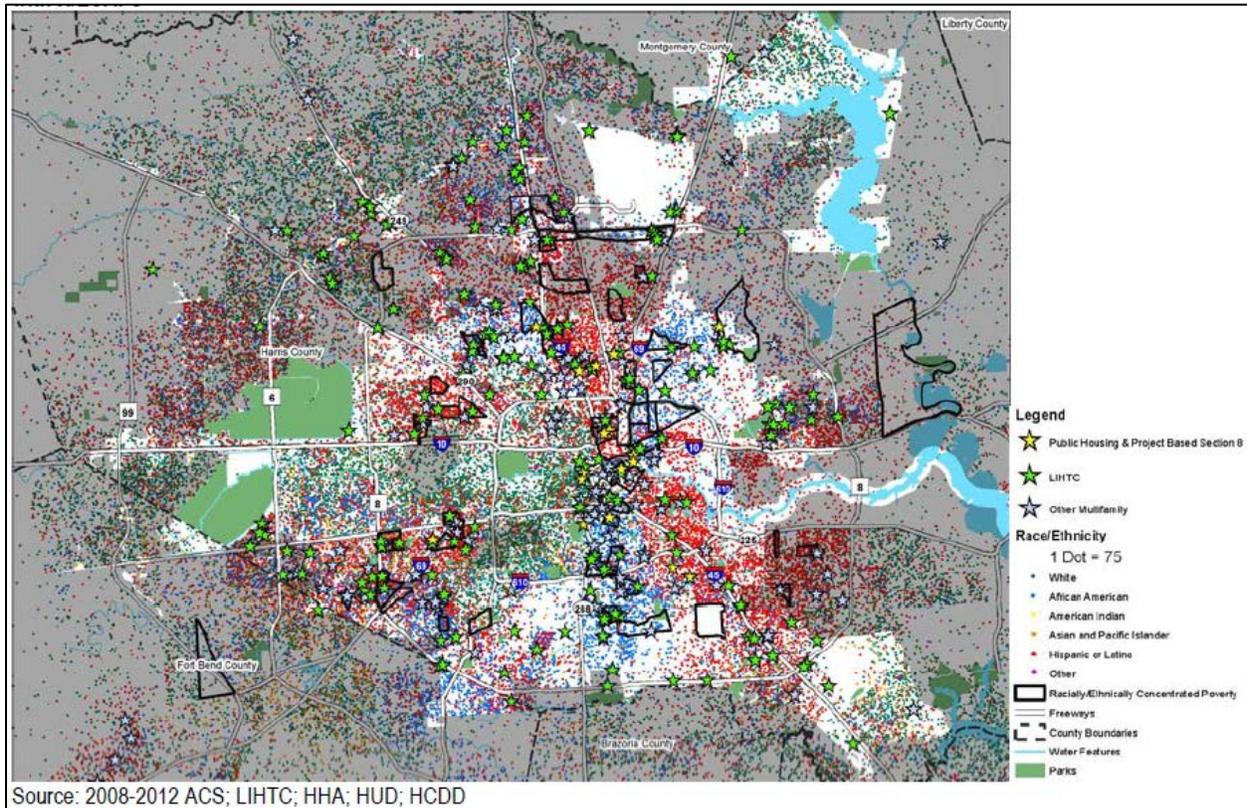
<sup>24</sup> Houston Housing and Community Development Department, 2015 Analysis of Impediments to Fair Housing Choice

# City of Houston Action Plan for Disaster Recovery 2015 Flood Events

## Public Housing

Public housing plays a vital role in the City of Houston's housing environment. The Houston Housing Authority (HHA) is the public housing authority that operates within, and directly outside, the City limits of Houston. HHA provides affordable homes and services to more than 60,000 low-income Houstonians, including over 17,000 families housed through the HHA. HHA also operates the country's 3<sup>rd</sup> largest voucher program serving exclusively homeless veterans in and around the Houston area.

Public Housing/Project-Based Section 8, Other Multifamily, and LIHTC locations mapped with race/ethnicity dot density map (HCDD) <sup>25</sup>



Overall, the Houston Housing Authority has roughly \$50 million in pre-existing physical need, but has recently agreed upon a \$25 million dollar partnership with Siemens, for energy improvements, and a \$4 million Capital Fund Program allocation (HCDD 2016 Annual Action Plan). In addition to this existing need, one of the properties under the jurisdiction of the Houston Housing Authority was impacted by both the Memorial Day and Halloween flooding events. This property is a senior living property, 2100 Memorial Senior Apartments. Although impacted, there is no available data at this time on the potential costs of damage and needed repairs<sup>26</sup>. As better information is made available, the impact to Public Housing and to the specifically mentioned public senior living property will be updated in this assessment.

## Housing Funds Made Available

The major federal funding sources available for impacted citizens following a natural disaster are FEMA Individual Assistance (IA), low-interest home loans from the US Small Business Administration (SBA), and insurance payments

<sup>25</sup> Houston Housing and Community Development Department, 2015 Analysis of Impediments to Fair Housing Choice

<sup>26</sup> Data request pending with Houston Housing Authority

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from the National Flood Insurance Program (NFIP). These are the funding sources which make up most of the housing recovery funding available prior to the allocation of CDBG-DR funds.

**FEMA Individual Assistance**

FEMA IA is comprised of various relief services for residents in disaster declared areas. Following a disaster event, such as the Memorial Day 2015 and Halloween 2015 flood events in Houston; these funds are used to help get individuals back into their homes by bringing them up to safe and sanitary living standards only. They are not intended to make homes “whole” again.

In the City of Houston, following the Memorial Day 2015 flood event, 3,313 residents received FEMA IA. The table below outlines the number of residents receiving assistance, their housing type, and the total amounts of FEMA IA assistance received related to the Memorial Day 2015 floods. **The total funds made available for the City of Houston via FEMA Individual Assistance is \$146,102,308.97.** At this time, Halloween FEMA IA data is not available; however, as more complete information is made available this assessment will be updated accordingly.

*FEMA FVL for Memorial Day Flood<sup>27</sup>*

Housing Type	Sum of Total Paid	Sum of Losses
2-4 Family	\$1,966,966.79	42
Assmd Condo	\$2,791,549.07	32
Non Resident	\$13,834,996.98	170
Other Resident	\$3,467,923.47	44
Single Family	\$124,040,872.66	3025
<b>Totals</b>	<b>\$146,102,308.97</b>	<b>3313</b>

**Small Business Administration (SBA) Home Loans**

The United States Small Business Administration offers low-interest disaster home loans to help residents repair their homes and recover personal property. Typically, far less SBA loans are awarded than FEMA IA; however, the SBA individual loan amounts often paint a better picture of potential damages, as they allow residents to recover beyond the point of merely achieving safe and sanitary living standards.

For the Memorial Day floods, 692 disaster home loans were approved by the SBA for a total awarded amount of \$43,912,200, which results in an average loan amount associated with the Memorial Day 2015 flooding of \$63,457.

SBA Disaster Home Loans: City of Houston for Dis. 4223	
Total Loans	Grand Total Approved Loans
692	\$43,912,200

For the Halloween 2015 floods, only 10 disaster home loans were approved by the SBA for a total awarded amount of \$265,700 which results in an average loan amount associated with the Halloween 2015 flooding of \$26,570.

SBA Disaster Home Loans: City of Houston for Dis. 4245	
Total Loans	Grand Total Approved Loans
10	\$265,700

<sup>27</sup> FEMA IA Data from Houston Housing and Community Development Department

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In total, for both events, 702 loans were approved for \$44,177,900 in total, and an average loan amount of \$62,931.48.

*National Flood Insurance Program (NFIP) and Other Insurance Coverage*

NFIP is a federal flood insurance program aimed at providing high flood risk areas coverage. As of August 4, 2016 for the State of Texas as a whole (Statewide), for the Memorial Day 2015 event only, there were 6,698 NFIP claims for a total amount of \$449,873,481 and an average claim amount of \$67,165.

Additionally, according to the Houston Office of Emergency Management's Disaster Summary Outline, roughly 40% of the properties damaged were covered by insurance. This number is relatively low for various reasons. Perhaps most notable, is the fact that many properties receiving damage were located outside of the floodplain. As noted previously, this assessment is based on the best currently available data and it will be updated accordingly, as complete data is made available for the City of Houston. At this time, NFIP claim data shows no claims paid to residents in the City of Houston<sup>28</sup>.

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<sup>28</sup> Confirmed via Texas Department of Insurance 8/5/16

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**Housing Unmet Need & Methodology**

In calculating the housing unmet need, it is vital to take the total housing impact, and subtract the funds made available thus far. **The total housing impact for the City of Houston is estimated at \$222,025,128.60.**

Based on the best data currently available, at this time, **the total funds made available for housing recovery for both the Memorial Day and Halloween events is estimated at \$190,280,208.97.**

Thus, when the estimated funds made available (SBA Home Loans Memorial Day and Halloween \$44,177,900 and FEMA FVL from Memorial Day \$146,102,308.97) are subtracted from the estimated housing impact, **the remaining unmet housing need is calculated as \$31,744,919.63.**

The table below outlines the number used to make these calculations, and is followed by a description of the specific methodology.

	Total	Units	Average
FEMA FVL (Memorial Day Flood only)	\$146,102,308.97	3313	\$44,099.70
SBA Home Loans (Memorial Day & Halloween Floods)	\$44,177,900	702	\$62,931.48
Halloween Flood IA Damage Estimate*	\$9,483,441.21		
<b>FVL &amp; Halloween Flood Estimate</b>			
	\$155,585,750.18		
<b>Multiplier</b>	1.42703		
<b>Housing Impact</b>			
	\$222,025,128.60		
*Note: for Halloween Flood Estimate, Citywide Units (789) was divided by Statewide Units (3,286) to calculate percentage of damaged units in Houston, and multiplied by Statewide IA Cost Estimate, to estimate Halloween Flood IA Cost in Houston. See the table below for details.			

The estimated impact was calculated using a housing multiplier. This multiplier was calculated by dividing the average SBA home loans from the Memorial Day and Halloween flooding events by the Average FEMA FVL from the Memorial Day flooding event. A multiplier is used because it paints a more accurate picture of the damages received due to the fact that SBA loans are more-so intended to cover full damages, as opposed to just getting resident's homes to safe and sanitary living conditions (which is what FEMA aims to do), and accounts for those who may have been deemed ineligible for FEMA assistance, but still received damage. **For this assessment, the multiplier is 1.42703.**

To estimate total housing impact, the FEMA FVL from Memorial Day flood only, \$146,102,308.97 was added to the Halloween flood IA Damage estimate. The City Damage Estimate (Halloween flooding) comes from the City/State Ratio (.2401) multiplied by the Statewide Damage Estimate: \$39,496,309 (based on the Statewide FEMA Damage Assessment). This comes from Statewide Units (3,286) divided by City Units (789). The City Units number comes from the Houston Office of Emergency Management's Disaster Summary Outline for the City of Houston, based on the Halloween flooding. When the Statewide Damage Estimate is multiplied by the City to State ratio, the estimated Halloween flooding impact for Houston comes out to \$9,483,441.21. **When added to the FEMA FVL total from the Memorial Day flooding, the estimated total impact before applying the multiplier is \$155,585,750.18. When applying the multiplier the estimated impact as mentioned above is \$222,025,128.60.** The following table outlines the Halloween flooding estimate calculation, based on the best currently available information.

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<b>Halloween Flooding IA Damage Estimate: Supplemental to Housing Impact Calculation</b>		
	Total	Units
Statewide Damage Estimate (FEMA Report)	\$39,496,309	3,286
City (Statewide*Ratio) Damage Estimate	\$9,483,441.21	789
City/State Ratio:	0.240109556	

As previously noted, the estimated Housing Unmet Need is as follows:

<b>Remaining Housing Unmet Need</b>	
Estimated Housing Impact:	\$222,025,128.60
Funds Made Available	(\$190,280,208.97)
<b>Remaining Housing Unmet Need</b>	<b>\$31,744,919.63</b>

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*Infrastructure Unmet Needs*

Unmet Needs Based on Damage Estimates Minus Assistance Received	
Infrastructure and Public Facility Damages <sup>29</sup>	\$25,800,546.80
Minus FEMA Public Assistance	- \$0
Minus State and Other Assistance	- \$0
<b>Remaining Unmet Need</b>	<b>\$25,800,546.80</b>

*Infrastructure Impact*

Infrastructure systems affected by the 2015 Disasters included damage to dams, roadways, bridges, wastewater treatment systems, drinking water treatment and collection systems. The immediate recovery efforts were documented by the initial estimates submitted for consideration for Public Assistance, through GIS mapping by city departments, such as the Housing and Community Development Department, and through the Houston Office of Emergency Management.

The City's coastal location, low base elevations, flat topography, and high urban density create a unique confluence of factors that contribute to vulnerability for flooding and drainage issues. Those factors are difficult for any similarly-situated city to address under normal circumstances. However when disaster-category storms and rainfall occur, these factors interact to create significant flooding issues that then impact housing developments that are critical to the affordability of the City.

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<sup>29</sup> **Note regarding data:** This estimate is preliminary due to the limitations on data availability at this time. Confirmed FEMA Public Assistance data is not yet available for the City to include in this analysis. The estimates in this analysis are based on the initial estimates provided by the city to FEMA for consideration for public assistance for the Memorial Day flooding event only, and are subject to change as additional data is acquired.

**2015 Memorial Day & Halloween Flooding Reports within LMI Areas and Council Districts**

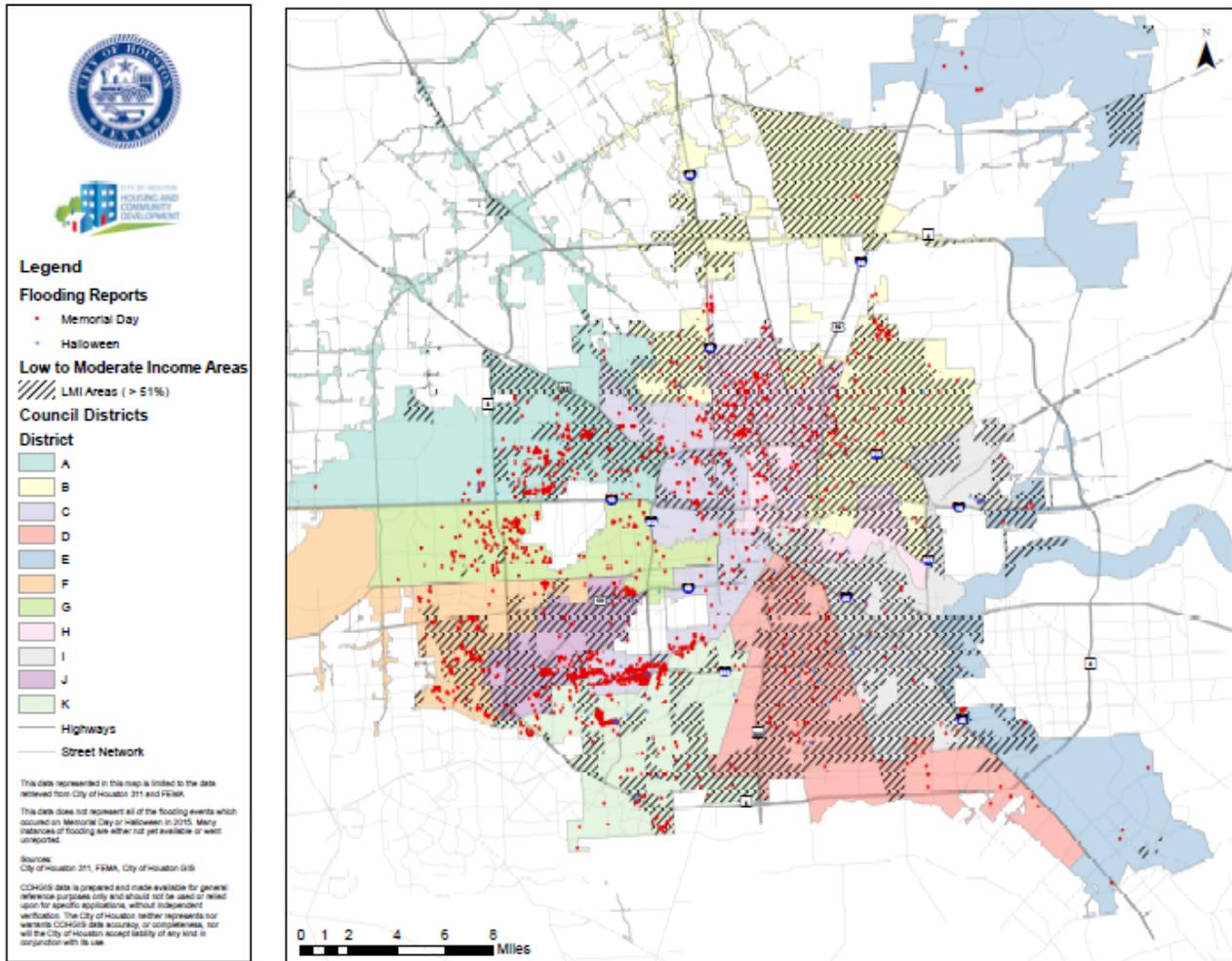


Figure 1 - Source: City of Houston Housing & Community Development Department



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The Memorial Day flooding event, which had substantially more flooding reports than the Halloween flooding event, had concentrated impact on the western portion of the city, as shown in the map above in Figure 1. While there were some clusters of impact in Low-to-Moderate (LMI) income areas, there were also substantial clusters outside of LMI areas in the south-western side of the city.

The concentration of impact in the southwest sector is further visualized in the Kernel Density Analysis map in Figure 2.

Kernel Density Analysis of the 2015 Memorial Day & Halloween Flooding Reports

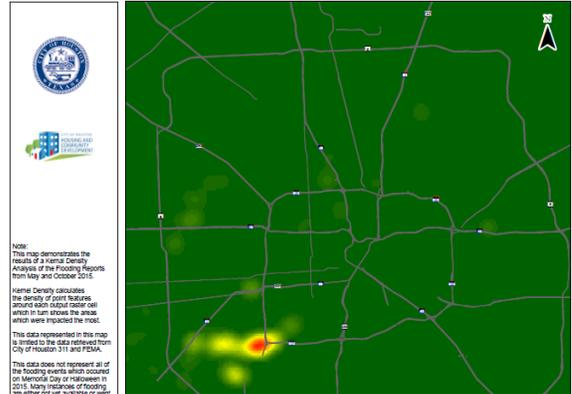


Figure 2 - Source: City of Houston Housing & Community Development Department

*The Impact of Open Space & Elevation*

The City has placed an increased focus on the importance of permeable and undeveloped space, open-ditch drainage, or park and open space, in the relationship with flood impact. The map below in Figure 3 shows flooding reports in relation to permeable space from 2001-2015. As indicated below, much of the flooding has taken place in areas with existing open ditch drainage and in areas outside of the existing floodplain, indicating that existing drainage and permeability was insufficient to prevent flooding.

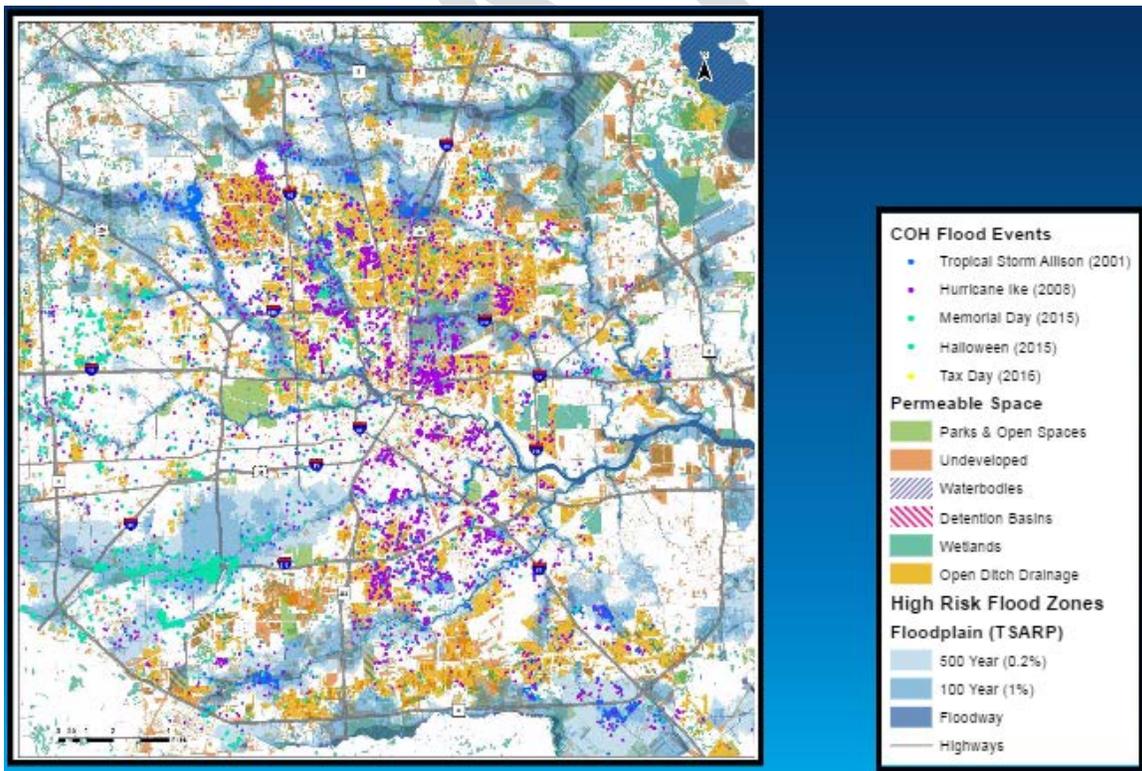


Figure 3 - Flooding Reports in Permeable Space (2001-2015) Source: City of Houston Housing & Community Development Department

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The City's overall elevation and drainage orientation, towards the Gulf of Mexico, further complicates the impact of neighborhood-level improvements, and amplifies the complexity and scale of Houston's long-term needs, within the context of its geography.

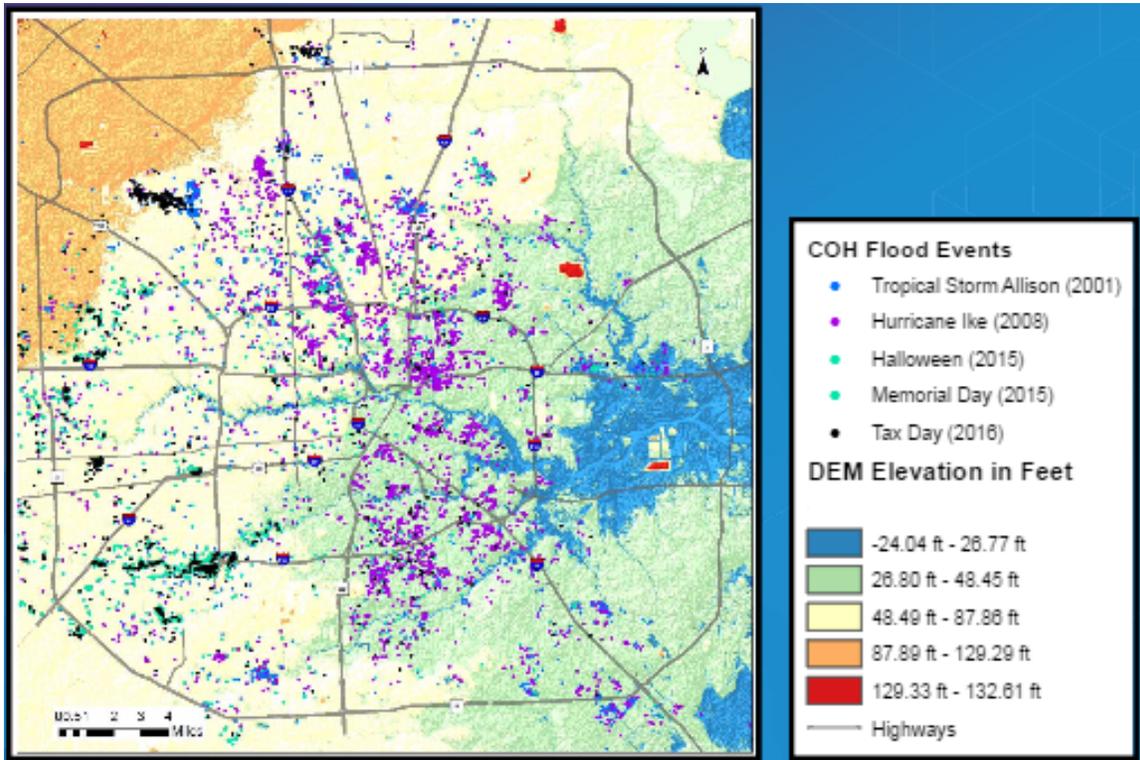


Figure 4 - Flooding Reports with Elevation (2001 – 2016) Source: City of Houston Housing & Community Development Department



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**Public Assistance**

With the aforementioned background on the unique infrastructure and drainage needs faced by the City, it is important to consider the amount of Public Assistance that the City may expect to receive for long-term recovery.

The FEMA Public Assistance (FEMA-PA) Program is designed to provide immediate assistance to impacted jurisdictions for emergency protective measures and permanent repairs to infrastructure and community facilities. The federal share of assistance is generally not less than 75% of the eligible project cost, requiring the state to contribute the remaining 25% in cost share.

The following tables outline the amount of Public Assistance provided (statewide) to impacted areas, for each declared event.

Statewide FEMA PA: Memorial Day Flood				
	Total Public Assistance Grants - Dollars Obligated	Emergency Work (Categories A- B) - Dollars Obligated	Permanent (Categories C-G) - Dollars Obligated	Work
<b>Total Amount</b>	\$130,490,043.17	\$21,923,528.12	\$107,005,614.05	
Source: <a href="http://www.fema.gov/disaster/4223">http://www.fema.gov/disaster/4223</a> <a href="http://www.fema.gov/disaster/4245">http://www.fema.gov/disaster/4245</a> Data: August 2016				
Statewide FEMA PA: Halloween Flood				
	Total Public Assistance Grants - Dollars Obligated	Emergency Work (Categories A- B) - Dollars Obligated	Permanent (Categories C-G) - Dollars Obligated	Work
<b>Total Amount</b>	\$14,157,254.91	\$1,602,251.41	\$12,277,070.50	
Source: <a href="http://www.fema.gov/disaster/4245">http://www.fema.gov/disaster/4245</a> Data: August 2016				

Regarding the City's specific needs and funding, as a subset of the statewide totals above, Public Assistance needs for both flooding events have been preliminary identified by the City as **\$25,800,546.80** to date, for Categories C-G (permanent repair), for the Memorial Day flooding event only.

These categories include:

- Category C: Roads and Bridges
- Category D: Water Control Facilities
- Category E: Buildings and Equipment
- Category F: Utilities
- Category G: Parks, Recreational Facilities, and Other Facilities

Current data does not indicate that any funds have been issued to the City from FEMA towards the needs identified by the City.

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Based on this data, an unmet need of \$25,800,546.80<sup>30</sup> in identified infrastructure damage, eligible under FEMA-PA Categories C-G, remains.

**Memorial Day Flood Anticipated FEMA Public Assistance Need: City of Houston Preliminary Estimates**

Emergency Work: PA Categories A-B	Permanent repair: PA Categories C-G	Number of Sites	Estimated Repair Cost
Debris Clearance		4	\$15,003,000.00
Emergency		83	\$ 279,512.50
	Category C: Roads and Bridges	-	-
	Category D: Water Control Facilities	-	-
	Category E: Buildings and Equipment	85	\$ 656,696.80
	Category F: Utilities	20	\$25,142,850.00
	Category G: Parks, Recreational Facilities, and Other Facilities	1	\$ 1,000.00
	<b>Subtotal Categories C-G Only:</b>	<b>106</b>	<b>\$25,800,546.80</b>

City of Houston Data - June 2015

**HMGP**

The Hazard Mitigation Grant Program (HMGP) will be a critical part of long-term resilience improvements for infrastructure in the impacted area. HMGP is generally calculated at 15% of the total amount of IA and PA allocated to the flood event. The amount available for mitigation and resilience activities for the city is unavailable at this time.

**Existing Efforts by Houston's CDBG Entitlement Program**

The City of Houston's Community Development Block Grant (CDBG) Program, operated by HCDD, received an annual allocation of \$22,140,237.00 from HUD, in 2016. The allocation is focused on the provision of economic development, community revitalization, public services, and affordable housing. **The City faces a large demand for the services addressed in the regular program; however the targeting of the regular allocation funds to meet those demands leaves a significant unmet need for infrastructure improvements exacerbated by ongoing flood and disaster events in the City.**

As set forth in its 2016 Annual Action Plan for entitlement grants, HCDD will provide funding for 6 public infrastructure and facility improvements through its Public Facilities Program during the 2016 Program Year<sup>31</sup>. Low- and moderate-income neighborhoods will be significantly improved by creating new or improved amenities and services in these neighborhoods.

<sup>30</sup> **Note regarding data:** This estimate is preliminary due to the limitations on data availability at this time. Confirmed FEMA Public Assistance data is not yet available for the City to include in this analysis. The estimates in this analysis are based on the initial estimates provided by the city to FEMA for consideration for public assistance for the May event only, and are subject to change as additional data is acquired.

<sup>31</sup> Source: Houston and HCDD Annual Action Plan

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*Economic Impact*

**Business & Employment**

The Memorial Day and Halloween flood events left businesses across Houston with a lot of clean up, however the city was extremely fortunate that the losses were relatively minor. Business slowed as owners returned to work to find damaged inventory, stagnant flood waters, and various needs for structural repairs. Economic activity was temporarily slowed due to limited access from flooding along the major transportation arteries.<sup>32</sup>

The City of Houston is built along the coast of Texas at an elevation barely above sea level where beaches and bayous have been filled in with pavement to support a growing, industrial city. The economy is primarily fueled by the energy sector with approximately 3,600 energy-related companies located in the area. The City is also a world leader in the chemical industry, with an extensive infrastructure that includes the world's most elaborate pipeline network, and over 405 chemical plants, in the Houston-Baytown-Huntsville area. The City is diverse and a hub for international business; the Port of Houston is the world's sixth largest port, making the City of Houston an international gateway to the Southwest. Another well-known feature of the City's economy is the Johnson Space Center of the National Aeronautics & Space Administration.<sup>33</sup>

**Flood Impact**

Early impact predictions in June, the month following the Memorial Day floods, estimated anywhere from \$3 to \$8 million in lost tax revenue; an estimate much higher than actual.<sup>34</sup>

As of August, 2016, the Small Business Administration (SBA) has issued \$2,022,000 in Business and Economic Injury Disaster Loans (EIDL) to residents in the city. A total of 31 loans were issued, at an average payout of \$61,219 for the Memorial Day floods, and only 2 loans at an average of \$62,100, for the Halloween flood.<sup>35</sup> An additional loan for \$2,000,000 was made to a non-profit entity for FEMA 4223, for a total of \$4,022,000 in assistance provided to businesses and non-profits for flood recovery, as shown below:

Memorial Day Flood: SBA Disaster Business Loans <sup>36</sup>	Number of Loans	Avg. Loan Amount
\$1,897,800	31	\$61,219
Memorial Day Flood: Non-Profit Loans		
\$2,000,000	1	\$2,000,000
Halloween Flood: SBA Disaster Business Loans		
\$124,200	2	\$62,100
Total SBA Business & Non-Profit Loans (For Both Events)		
\$4,022,000		

<sup>32</sup> <http://www.bizjournals.com/houston/news/2015/12/16/year-in-review-floods-hammer-houston-in-2015.html>

<sup>33</sup> <http://www.city-data.com/us-cities/The-South/Houston-Economy.html>

<sup>34</sup> <http://www.bizjournals.com/houston/news/2015/06/03/heres-the-estimated-economic-impact-of-houstons.html>

<sup>35</sup> See Appendix for detailed breakout by NAICS code

<sup>36</sup> Information provided by SBA Public Information Office

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Additionally, preliminary data from the Office of Emergency Management (OEM) indicates:

**Business Losses/Impacts**

**Memorial Day Flood**

Type of Damage	Number	# Covered by Adequate Insurance	Total estimated repair cost
Minor Damage (<40%)	57	20	NA
Major Damage (>40%)	13	6	NA
TOTAL	70	26	NA

\*13 businesses had to cease operations, 57 experienced economic injury.

The Halloween flooding caused a less significant impact and businesses reopened sooner than with the Memorial Day flooding event. The business losses for the Halloween event were

Business Losses/Impacts: Halloween flooding  
Major Damage (>40%): 1  
Estimated Persons unemployed as a result of disaster: 30

The Greater Houston Partnership, Chamber of Commerce, the Texas Workforce Commission, and the Mayor's Office of Economic Development were consulted for additional economic/business-related impact from the flooding events and no additional impact was reported. No Disaster Unemployment Assistance (DUA) claims were indicated to have been paid out for Houston residents.

**State of the Economy**

Overall, flood-related impact to the Houston economy was minimal. The damage hit as local businesses and families were coping with an economic slowdown driven by low crude oil prices. The Houston economy is primarily based on the energy industry, with primary jobs largely in the oil and gas industry, which has been in a steady decline since 2014. Oil prices began their slide in the summer of 2014, plunging from more than \$100 a barrel to less the \$30 in February 2015, leading to production cuts, bankruptcies, and widespread layoffs in the industry.<sup>37</sup>

According to the 2015 *Economy at a Glance* report, issued by the Greater Houston Partnership, eight sectors in the City's economy experienced decline, while nine experienced growth.<sup>38</sup>

<b>Growth</b> Added 64,000 jobs in 2015	<b>Decline</b> Collectively cut 40,800 jobs in 2015
Construction; retail trade; administrative support; educational services; health care; arts, entertainment and recreation; accommodations and food services; information; and government	Mining and logging (i.e., upstream energy); manufacturing; wholesale trade; transportation, warehousing and utilities; finance and insurance; real estate; professional and technical services; and management of companies

However, the City's housing market experienced the second best growth year on record during 2015. According to the report, "Houston-area realtors sold 73,724 single-family homes in 2015, down 2.4 percent from 75,535 sold the

<sup>37</sup> <http://www.houstonchronicle.com/news/houston-texas/houston/article/Years-of-pain-still-ahead-for-Houston-UH-7561506.php>

<sup>38</sup> [https://www.houston.org/pdf/research/glance\\_archives/Glance\\_Feb16.pdf](https://www.houston.org/pdf/research/glance_archives/Glance_Feb16.pdf)

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prior year, according to the Houston Association of REALTORS®. After a record-breaking 2014, Houston recorded its second-highest sales volume in 2015.”

*Economic Unmet Need*

In regards to the specific Economic Unmet Need, a calculation using the estimated impact and estimated assistance was used to arrive at a remaining unmet economic need of \$0.00, which illustrates the resiliency of the Houston economy.

Economy	
Estimated Impact	\$4,022,000
Funds Made Available	\$4,022,000
<b>Unmet Need</b>	<b>\$0.00</b>

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<sup>39</sup> Estimated Impact and Funds Made Available Calculated as SBA Disaster Business Loans tied to Memorial Day and Halloween flood events in the City of Houston

City of Houston  
Action Plan for Disaster Recovery 2015 Flood Events

### Connection Between Unmet Needs and Allocation of Resources

While our Impact and Unmet Needs Assessment clearly identifies unmet needs in the areas of housing and infrastructure, our allocations of CDBG-DR15 funding do not reflect a single family component. As we have stated previously, the City proposes to focus on the root cause of flooding in the City of Houston and our proposed budget document reflects this. We believe that through this strategy, we can make the greatest impact on the greatest number of low- and moderate-income residents within highest impacted areas.

HCDD is working to create a single family development and repair plan that will utilize \$106 million bond issuance secured by TIRZ affordable housing set-aside funds and includes Complete Community and Community Land Trust strategies. Entitlement funding may also be directed to the targeted areas to provide additional infrastructure, public facilities, and economic development investments.

### Advanced Elevation/Insurance Requirements

HCDD will follow HUD guidance to ensure all structures, defined at 44 CFR 59.1, designed principally for residential use and located in the 1 percent annual (or 100-year) floodplain, that receive assistance for new construction, repair of substantial damage, or substantial improvement, as defined at 24 CFR 55.2(b)(10), must be elevated with the lowest floor, including the basement, at least two feet above the 1 percent annual floodplain elevation. Residential structures with no dwelling units and no residents below two feet above the 1 percent annual floodplain, must be elevated or flood-proofed, in accordance with FEMA flood-proofing standards at 44 CFR 60.3(c)(3)(ii) or successor standard, up to at least two feet above the 1 percent annual floodplain.

Property owners assisted through the recovery program will be required to acquire and maintain flood insurance if their properties are located in a FEMA designated floodplain. This requirement is mandated to protect safety of residents and their property and the investment of federal dollars. The elevation height of a house can significantly reduce the cost of flood insurance. Houston will implement procedures and mechanisms to ensure that assisted property owners comply with all flood insurance requirements, including the purchase and notification requirements described below, prior to providing assistance.

As noted in the eligibility requirements set forth herein, the City will ensure that property owners receiving disaster assistance that triggers the flood insurance purchase requirement are informed that they have a statutory responsibility to notify any transferee of the requirement to obtain and maintain flood insurance, and that the transferring owner may be liable if he or she fails to do so.

### Demonstrable Hardship

The City may consider exceptions to program policies for applicants who demonstrate undue hardship. Applicants in this situation will be reviewed on a case by case basis to determine whether assistance is required to alleviate such hardship. Demonstrable hardship may include, but is not limited to, excessive amounts of debt due to a natural disaster, prolonged job loss, substantial reduction to household income, death of a family member, unexpected and extraordinary medical bills, disability, etc.

### Leveraging

CDBG-DR funds are a funding source of last resort. Since the 2015 flooding events devastated the Houston metropolitan area, the City has worked with HUD, FEMA, SBA, and other federal and state-funded agencies, to identify and catalog available sources of assistance for recovery from the floods.

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Accordingly, the City will ensure that CDBG-DR15 funds are only used to address needs not satisfied by other funding sources, many of which are already providing disaster relief, including, but not limited to:

- FEMA Individual Assistance grants
- FEMA Public Assistance grants
- FEMA Hazard Mitigation Grant Program
- SBA Disaster Loans
- National Flood Insurance Program payments
- Private insurance

### Duplication of Benefits

In accordance with the Robert T. Stafford Act, as amended, the City will continue to implement its current policies and procedures to ensure no individual or other entity receives duplication of benefit for the same purpose and/or effect to recover from the floods. Federal law prohibits any person, business concern, or other entity from receiving Federal funds for any part of such loss as to which he has received financial assistance under any other program, from private insurance, charitable assistance or any other source.

CDBG-DR funds cannot supplant, and may not be used for activities reimbursable by or for which funds are made available by FEMA or USACE.

### Construction Methods

#### Standard for Replacement and New Construction of Residential Housing

The City will implement construction methods that emphasize high quality, durability, energy efficiency, sustainability, and mold resistance. All rehabilitation, reconstruction, and new construction will be designed to incorporate principles of sustainability, including water and energy efficiency, resilience, and mitigation against the impact of future disasters.

Under the CDBG-DR15 Program, the City will require all construction activities to follow the guidelines specified in the HUD CPD Green Building Checklist and meet an industry-recognized standard that has achieved certification under at least one of the following programs

- ENERGY STAR Multifamily High Rise Program
- Enterprise Green Communities
- LEED (New Construction, Homes, Midrise, Existing Buildings Operations and Maintenance, or Neighborhood Development)
- ICC-700 National Green Building Standard
- EPA Indoor AirPlus (ENERGY STAR a prerequisite)
- any other equivalent comprehensive green building program

Houston will implement and monitor construction so as to ensure the safety of residents and the quality of projects developed. All multifamily units developed must comply with the current Minimum Quality Standards (MQS).

For rehabilitation other than substantially damaged residential buildings, grantees must follow the guidelines specified in the HUD CPD Green Building Retrofit Checklist. Grantees must apply these guidelines to the extent applicable to the rehabilitation work undertaken, including the use of mold resistant products when replacing surfaces such as drywall.

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**Broadband Infrastructure**

Houston will also ensure through its CDBG – DR15 Program that any new construction or substantial rehabilitation, as defined by 24 CFR 5.100, of a building with more than four rental units, will include installation of broadband infrastructure (as defined in 24 CFR 5.100), except where the grantee documents that: (i) The location of the new construction or substantial rehabilitation makes installation of broadband infrastructure infeasible; (ii) the cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden; or (iii) the structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

**Housing and Small Business Rehabilitation Contractor Standards and Appeals Process**

This will be addressed, once the final data analysis is complete and final decisions are made regarding housing activities.

***Identifying and Addressing Rehabilitation, Reconstruction, and Replacement by Housing Type***

This will be addressed, once the final data analysis is complete and final decisions are made regarding housing activities.

**Encourage Provision of Housing that is Resilient to Natural Hazards**

Resiliency is a primary consideration for CDBG-DR15 funded activities. While we are not creating housing with CDBG-DR15 funding, we are preserving existing housing through flood mitigation and infrastructure activities. Single family development and home repair activities will be funded through other local sources, as discussed herein above.

Decision-making is done with access to information regarding LMI concentrated areas and racially/ethnically concentrated areas, and geographic location of projects is impacted by this information, as well as project selection overall.

One of the ways that the City proposes to affect de-concentration in LMI areas is through multifamily acquisition/buyout activities funded with CDBG-DR15.

In addition, entitlement funded projects will be considered in conjunction with funded CDBG-DR15 activities, to address the resiliency of Houston neighborhoods.

**Minimizing Displacement of Persons/Entities**

Consistent with the City of Houston's Consolidated Plan, CDBG-DR15 funded activities will be designed to eliminate (or minimize) the occurrence of displacement. HCDD will minimize displacement of persons or entities and assist persons or entities displaced as a result of implementing a project with CDBG-DR15 funds. This is not intended to limit the ability of the City to conduct buyouts or acquisitions for destroyed and extensively damaged units or units in a floodplain.

The City will ensure that the assistance and protections afforded to persons or entities under the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and Section 104(d) of the Housing and Community Development Act of 1974, are available. The URA provides that a displaced person is eligible to receive a rental assistance payment that covers a period of 42 months. The City accepts the HUD waiver of the Section 104(d)

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requirements, which assures uniform and equitable treatment by setting the URA and its implementing regulations, as the sole standard for relocation assistance under the Notice published at **81 FR 39687**.

**Program Income**

The City does not intend to implement any programs that generate income as described in 24 CFR 570.489. However, in the event that any of the activities funded by CDBG-DR15 will generate income, the City will comply with all HUD requirements found at 24 CFR 570.489, as well as the rules outlined in 81 FR 39687. Specifically, the City will adhere to the Program Income policies and procedures detailed in the *Risk Assessment Documentation (Financial Management Procedures)*.

Under 81 FR 39687, HUD provides grantees the option of transferring program income to their annual CDBG entitlement grant (if applicable) or to be used as CDBG-DR15 funds until grant closeout. The City has opted to not return any program income received to the CDBG-DR15 program and instead transfer it to its annual CDBG entitlement grant. To the maximum extent feasible, HUD requires that program income shall be used or distributed before additional withdrawals from the U.S. Treasury are made.

**Monitoring Standards and Procedures**

The complete HCDD Monitoring Plan, Policies and Procedures (HCDD Monitoring Plan) were included in the *Risk Assessment Documentation* submitted to HUD. As demonstrated therein, HCDD already possesses the necessary policies, systems and procedures which formally establish the critical monitoring strategies for all cross-cutting regulatory requirements. These well-established systems include HUD program rules and regulations, civil rights, environmental, labor standards, fair housing, Section 3, citizen participation, reporting and recordkeeping requirements. Not only do the systems exist, but they have proven to be successful approaches in the oversight of projects supported with CDBG and previously allocated CDBG-DR funds. The CDBG-DR15 allocation will leverage these existing resources and adapt them to the requirements of Public Law 114-113 and any subsequent related guidance.

Monitoring functions will ensure funding recipients, developers, contract service providers, and all contracted agencies adhere to city, state, and federal regulations and requirements when operating, facilitating, or developing HCDD administered programs and activities. HCDD utilizes a Monitoring Plan that details the reasons monitoring reviews occur, timelines, specific approach to monitoring, documentation requirements and corrective actions necessary to resolve issues or concerns discovered through a review. This plan details monitoring procedures, scheduling, and standards, to provide HUD-funded activity compliance and performance reviews for all funding recipients, including internal HCDD program operations. HCDD perform monitoring and compliance reviews based on predetermined scheduling, as well as monitoring related to an acute or chronic matter uncovered by an external audit or necessitated by the possibility of fraud, waste, or mismanagement. The monitoring process reviews consist of entrance meetings, analysis of documentation, client interviews, exit meetings, development and issuance of compliance review reports, and if necessary, follow-up reviews and letters.

**Budget/Method of Distribution**

**Program Budget**

The City will allocate all program dollars for infrastructure recovery and resilience activities to support housing, as follows.

Activity	Amount
Public Facilities/Infrastructure	\$51,232,000
Acquisition	\$10,000,000
Planning	\$2,000,000

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Administration	\$3,328,000
Total	\$66,560,000

Program funds administered by the City will be made available only within the impacted areas of the City of Houston, Texas consistent with the official FEMA Disaster Declarations 4223 and 4245 issued on May 29, 2015 and November 25, 2015 respectively.

### Meeting CDBG-DR Program National Objectives

The City has designed the CDBG-DR15 program in compliance with HUD national objectives and throughout the life of the CDBG-DR15 program it will make every effort to ensure that assistance is prioritized toward the most disadvantaged populations and areas. The City will spend no less than 70% of funds to provide a direct benefit to LMI households.

As long-time stewards of CDBG funds, the City supports and fully embraces HUD's performance objectives to develop viable communities by creating a suitable living environment, providing decent housing, and creating economic opportunities, for LMI persons. All activities funded, except for program administration and planning, must meet one of the following three national objectives.

- Benefit to low- and moderate-income (LMI) persons
- Aid in the prevention or elimination of slums or blight
- Meet a need having a particular urgency (referred to as urgent need)

### Clarification of Disaster Related Activities

#### Housing

CDBG-DR funds are often used to rehabilitate damaged homes and multifamily units. However, grantees may also fund new construction or rehabilitate units not damaged by the disaster if the activity clearly addresses a disaster-related impact. This impact can be demonstrated by the disaster's overall effect on the quality, quantity, and affordability of the housing stock and the resulting inability of that stock to meet post-disaster needs and population demands.

Based on the analysis of the City's unmet needs and the limited amount of recovery funds available, the City will target CDBG-DR15 funding towards infrastructure in support of housing, rather than home repair or elevation. To provide lasting impact and/or relief to the greatest number of residents we are focusing on infrastructure improvements that will eliminate or lessen the number of homes that will flood in the future. Many of the same homes that flooded in 2015, flooded in subsequent events in 2016, highlighting the need for a more permanent solution based on the root cause of the flooding, rather than repair or elevation of specific homes. This strategy aims to sustain long term recovery. The City has already begun the process of developing a funding plan to address single family development and home repair programs to meet the City's unmet housing needs.

#### Infrastructure

The City has allocated as significant portion of CDBG-DR15 funding to infrastructure projects. Without critical infrastructure repairs and upgrades, the City cannot hope to address its housing needs without risking repetitive loss. Impacted areas benefitting LMI residents will be prioritized to meet the 70% LMI benefit threshold. These planning efforts are founded in principles critical to the overall long-term recovery process, so that the City's communities will be more resilient to future disasters.

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The City intends to focus its efforts related to infrastructure on flood mitigation and related infrastructure improvements such as, but not limited to, roads, bridges, drainage systems, and public utility infrastructure.

Infrastructure objectives include rebuilding, repairing, and/or replacing underperforming or insufficient infrastructure and facilities. The City will evaluate and incorporate specific project design elements that may enhance preparedness for future disasters.

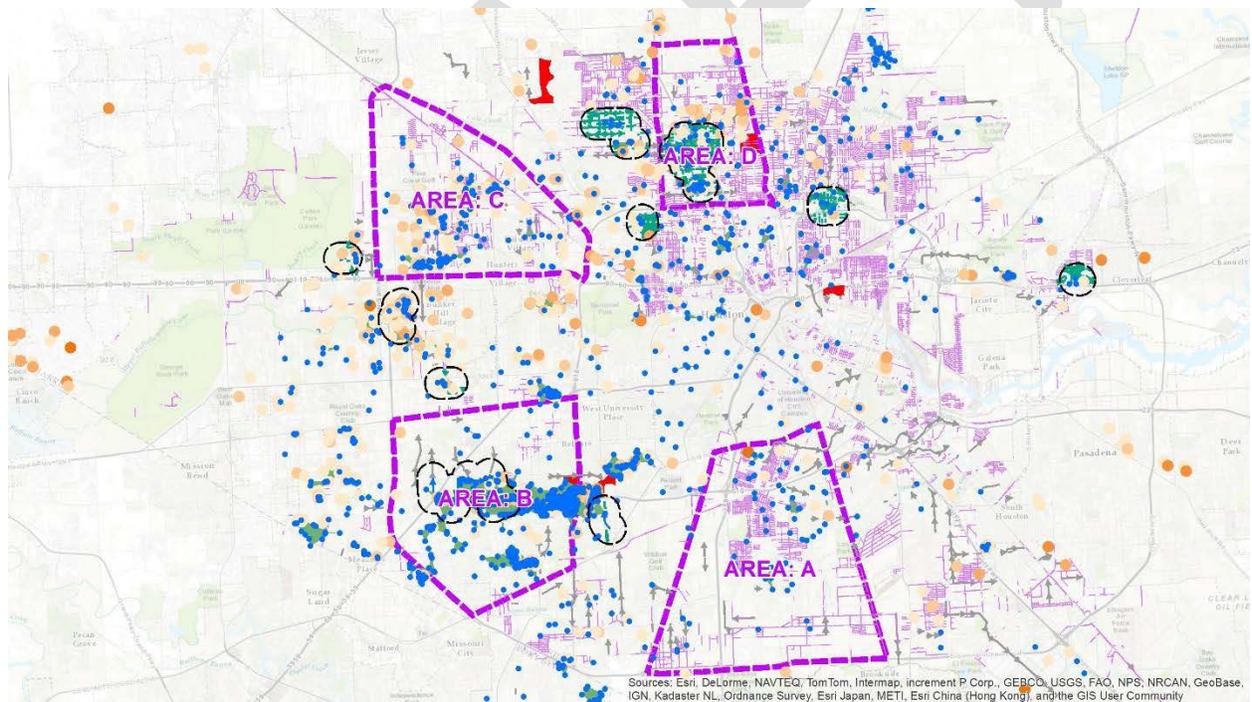
The following is a summary of the additional analysis as it relates to infrastructure and potential projects.

### Infrastructure Analysis & Evaluation Study

The City conducted a review of planned infrastructure projects and other projects associated with the City owned drainage system, to identify opportunities to mitigate the risk of future flooding in the most heavily impacted areas.

This City utilized data from May and October 2015 floods, such as the locations tied to FEMA IA claims, 311 Hotline calls, and debris removal pick-up locations, and plotted them on a map of the City. The City next identified the greatest concentration of data points on the map, to identify “clusters” within LMI and non-LMI areas that were impacted by the disaster, as illustrated in Exhibit 1.

Exhibit 1 – Cluster Data



Based on the clusters of damage citywide, the City identified 4 primary target or “cluster areas” within LMI and non-LMI zones and overlaid the location of planned flood-control related projects taken from the City’s Capital Improvement Plan (CIP). This analysis identified a total 37 drainage or flood-control related projects that could mitigate flooding in these areas, thus increasing the resilience within the community.

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Once the projects were identified, the City performed visual inspections of the cluster areas to assess the bayous, creeks, floodplains, flood-damaged, and flood-prone structures (both residential, commercial and industrial) and infrastructure in prioritized areas in the City. The assessment included a review of how these projects may benefit low-lying structures and buildings, additional issues that may impact the areas such as bank and channel conditions, important storm drainage conveyance areas, and locations of known or suspected inadequate culvert and road drainage conveyance. The results of the field visits were then compared to LiDAR data collected during and after the 2015 floods, to provide another data point for the City.

**Project Analysis**

Based on the desktop and field analysis, the City developed a list of potential flood impact projects for the cluster areas. The City created ranking criteria to evaluate the projects. The projects that will be identified as most effective will be those ranked highest as the most compatible with current conditions, identified unmet needs, and desired future outcomes of the City, as well as those that comply with the requirements of CDBG-DR15 funding.

The ranking criteria, described in Table 1, are currently being reviewed by the City. The ranking criteria have not yet been applied to the identified projects.

**Table 1 – Ranking Criteria**

<b>Evaluation Area</b>	<b>Description</b>
<b>Hydraulic/hydrologic significance or impact</b>	Reduces flood flows and/or flood depths. These reductions can be measured or quantified with respect to the amount of floodplain area reclaimed and/or the number of structures (or square footage of structures) removed from flood zones. These projects 1) mitigate flood damage in terms of reclaimed area, structures, or infrastructure, 2) can impact upstream or downstream of the project area, 3) reduce flood flows, water surface elevations, and/or pollutant loadings, and may increase values or encourage economic development.
<b>Public safety</b>	Increases safety for emergency personnel and the general public. Projects can 1) enhance mobility for emergency responders, by providing unflooded or safe access routes, especially where none presently exist, 2) reduce and/or removes public roadways, facilities, etc.
<b>Benefit - Cost Potential</b>	Provides a measure of a project's potential benefits versus its costs. The calculation may be limited to the data provided in a Level 1 or Level 2 cost estimate.
<b>Dependency on other projects</b>	Projects that can be completed independently of other projects or can provide their intended benefit without another project being completed may be preferable.
<b>Mobility or effects on transportation system</b>	Projects that eliminate or reduce the time that roadways are inundated, which may increase travel time and corresponding lost production during flood conditions by providing unflooded access.
<b>Sustainability or low operations &amp; maintenance cost</b>	Sustainability refers to the operation and maintenance cost of a project. It can be thought of in terms of the ability of a project to remain effective relative to its upkeep or operational cost. A nonstructural flood mitigation project, such as natural creekway enhancements, buyouts, or open space purchases, would typically require less maintenance as compared to a channel improvement project that may require scheduled mowing and debris removal.
<b>Co-Located Mitigation Projects</b>	If the City is engaged in other mitigation grants in a given area such as FEMA PA 406, FEMA HMGP 404, FEMA FMA, or NRCS-EWP, projects that target those investments may be preferable.
<b>Level of protection provided (i.e. 25 year,</b>	Categorize the project into design return period as defined by the regional or local hydrologic standards. For example, a regional project designed to accommodate the 1%

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<b>50 year or 100 year flood)</b>	(100-year) flood event would rank higher than one designed for a 4% (25-year) event.
<b>Funding sources (leverage of participants available funds)</b>	If other funding sources are available for a particular type of project or due to its location, then the primary funding agency may be able to leverage its funds and stretch its resources.
<b>Beneficial neighborhood impacts</b>	This factor should weigh in on the non-hydrologic/hydraulic significance of a project on adjoining neighborhoods and should include the construction phase of a project. A positive example would be a multi-use facility. A negative example of this might be the necessary removal of trees for a detention facility or channelization project adjacent to a residential neighborhood that might influence this ranking factor are aesthetics, security and objectionable construction activity.
<b>Water quality enhancement</b>	A measure of a project's effect on water quality either (and preferably) as designed or through planned or easily incorporated future upgrades. For example, a detention pond may provide settlement time for solids with no specific water quality upgrade or design component while a channelization project may have a small water quality benefit if grass filters can be effectively added in the future.
<b>Time to implement or construct</b>	Projects that need right-of-way and/or lengthy design or construction timeframes will not be scored as favorably as those with no land acquisition requirements and completed designs. The CDBG-DR has a 6 year period of performance.
<b>Permitting resistance or difficulty</b>	Ease of permitting, considering specific regulations, regulatory resistance, timing, etc. issues, water rights, endangered species, TXDOT, or USACE. Again, issues such as these can contribute to an inability to complete the project in a 6 year timeframe.
<b>Environmental or habitat enhancement</b>	A measure of a project's potential to enhance a desired habitat and/or have a positive impact on the environment. For example, an open concrete-lined channel would score low, but a restored natural channel would score high.
<b>Potential for Recreation/Open Space/Connectivity for linear parks</b>	A measure of the acceptability/adaptability of a project site for recreational facilities or open space. Some projects may be located in floodplain areas and may provide links between other parks, and open space.

The types of projects and programs the City may consider are included below in Table 2 for both inside and outside of LMI areas. These projects will be evaluated based on the criteria set forth in Table 1, prior to finalizing the project list.

Table 2 – Project List In and Outside of LMI Zones

SELECTED PROJECTS - CIP DRAINAGE					
CIP NO	PROJECT DESCRIPTION	CITY COUNCIL DISTRICT	COST	Area	LMI_Zone
M-420126-0087	Braesmont / Beechnut Inlet	C	\$0	B	N
M-000126-0077	9215 Cadawac	J	\$0	B	Y
M-000126-X73A	200 Blk of 44th St	H	\$0	D	Y
M-410028-0001	Westbury Area 1: Drainage	K	\$0	B	N
N-100009-0001	Antoine: North of Hempstead To Hammerly / Hammerly: Antoine to Harland St	A	\$0	C	Y
M-000126-0067	7500 Bellerive & Marinette	J	\$0	B	Y
M-410024-0001	Southland Area: Drainage : Sub Project 1	D	\$0	A	Y
N-100031-0001	W. 34th St: Hempstead Rd. to 900' east of Bolin	A	\$0	C	Y
N-100021-0001	Fondren: Creekbend To W Airport	K	\$0	B	Y
N-100012-0001	Hillcroft Avenue: Bissonnet To Beechnut	C	\$0	B	Y
N-100008-0001	Fondren Road: Braeswood To Creekbend	K	\$0	B	N
N-000809-0001	Gessner: Neuens To Long Point	A	\$0	C	N
M-420126-0085	Cartagena and Cerritos	K	\$0	B	Y
M-420126-ECDS	Hammerly Blvd @ Parana Dr	A	\$0	C	N
M-420126-0086	Bintliff-Osage Maintenance Access: Bintliff @ Beechnut	J	\$0	B	Y
M-420126-0086	Bintliff-Osage Maintenance Access: Bintliff @ Langdon	J	\$0	B	Y
M-420126-0086	Bintliff-Osage Maintenance Access: Osage @ Romney	J	\$0	B	N
M-420126-0086	Bintliff-Osage Maintenance Access: Osage @ Edgemoore	J	\$0	B	N
M-420126-0086	Bintliff-Osage Maintenance Access: Osage @ Bellaire	J	\$0	B	Y
M-000126-0073	9800 Warwana	A	\$0	C	N
M-000126-0077	10110 Metronome	A	\$0	C	N
M-000126-0073	11007 Murr Way	D	\$0	A	Y
M-430004-0001	5700 South Acres	D	\$0	A	Y
M-420126-0085	5155 Kingfisher	K	\$0	B	N

M-000126-0065	Fairland: Dulcrest to Barberry	D	\$0	A	Y
M-410003-0001	Roosevelt, Edel Plaza, Little York Acres	H	\$2,948,000	D	Y
M-000295-0001	Scott Street: Ih-610 To Old Spanish Trail Drainage Improvements	D	\$3,029,000	A	Y
M-410013-0001	Melrose Park Sec 2 Drainage Improvements (Roadside Ditches)	H	\$3,461,000	D	Y
M-410004-0001	Little York, Courtland Meadows, York Meadows	H	\$5,559,000	D	Y
N-000401-0001	Neighborhood Street Reconstruction # 468 storm sewer Improvements	D	\$7,509,000	A	Y
M-410023-0001	Richmond Plaza 2: Area Drainage	J	\$8,834,000	B	Y
M-410005-0001	Spring Shadows North: Storm Sewer Improvements	A	\$8,835,000	C	Y
N-210004-0001	Cloverland Area Sec-1 Drainage	D	\$10,133,000	A	N
M-000293-0001	Binglewood: Drainage Improvements	A	\$12,475,000	C	N
N-000801-0001	MLK: IH 610 to Bellfort / Storm Sewer Replacement	D	\$14,342,834	A	Y
M-000294-0001	Cullen From Ih-610 To Old Spanish Trail Drainage Improvements	D	\$17,111,000	A	Y
M-000284-0002	Airline: Drainage Improvement: (Seg 2)	H	\$19,561,000	D	Y
<b>TOTAL COST:</b>			<b>\$113,797,834</b>		

## Economic Revitalization

Based on the Impact of Unmet Needs Assessment, there is no unmet need in this category that would require prioritizing the economic development activity. Therefore, the City has elected to direct CDBG-DR15 funding towards other eligible activities.

### Preparedness and Mitigation

As discussed above, the City has elected to focus its efforts on preparedness and mitigation in its planned infrastructure activities. The aim is to reduce the number of homes impacted by flooding and create sufficient infrastructure to handle the additional water that flooding events bring to the City's bayous and tributaries. Working with Public Works and Engineering and the Office of Emergency Management will help to ensure that we are targeting the projects with the greatest ability to improve drainage and capacity.

### Connection to the Disaster/Record Keeping and Performance Reporting

While the City will ensure that all required records are collected and maintained, as we will not be addressing damage, but rather, infrastructure improvements, there will be no need to demonstrate connection to specific damage. However, we will utilize disaster impact information to inform decisions related to geographic location of projects selected. The city will carry out activities intended to strengthen communities to become sustainably positioned to meet the needs of the community post-disaster.

In accordance with HUD requirements, the City will submit a Quarterly Performance Report (QPR) through the HUD Disaster Recovery Grant Reporting (DRGR) system no later than thirty (30) days following the end of each calendar quarter. Program QPR's will be posted on a quarterly basis until all funds have been expended and all expenditures have been reported. The City will utilize OnBase, its content and case management software, to collect required reporting elements and ensure the accuracy of QPR's.

### Clarity of Action Plan

#### Citizen Participation Plan for Disaster Recovery

##### A. Introduction

The purpose of the Citizen Participation Plan for Disaster Recovery (CPP-DR15) is to establish means by which residents of the City of Houston (City), public agencies, and other interested parties can actively participate in the development, implementation, and assessment of documents related to Community Development Block Grant Disaster Recovery funding associated with the 2015 Flood Events (CDBG-DR15). The City developed the CPP-DR15 to meet the requirements of the CDBG-DR15 funding and reflects the alternative requirements as specified by the U.S. Department of Housing and Urban Development (HUD) in Federal Register (FR -5938-N-01).

This is separate from the City's *Citizen Participation Plan*, which describes public participation related to the consolidated planning process and entitlement grants. The City encourages citizen participation that emphasizes the involvement of low- and moderate-income residents, minority populations, persons with limited English proficiency, and persons with disabilities.

##### B. Documents

For the CPP-DR15, documents related to CDBG-DR15 are defined as the Action Plan for Disaster Recovery – 2015 Flood Events (Action Plan), any substantial amendments to the Action Plan, and any associated performance reports. As the City is committed to providing access to the CDBG-DR15 information and programs for all citizens,

these documents will be made available to persons with limited English proficiency or made accessible to persons with disabilities, upon request. Requests may be made to: [2015FloodEvents@HoustonTX.gov](mailto:2015FloodEvents@HoustonTX.gov) or 832.394.6200.

### **1. Action Plan**

This Action Plan is available on the City's CDBG-DR15 website:  
[http://houstontx.gov/housing/2015\\_Flood\\_Events\\_Recovery.html](http://houstontx.gov/housing/2015_Flood_Events_Recovery.html)

Copies of the Action Plan are available upon request to:  
[2015FloodEvents@HoustonTX.gov](mailto:2015FloodEvents@HoustonTX.gov) or 832.394.6200.

### **2. Amendments**

Occasionally, it may be necessary for the City to update the Action Plan. Amendments to the Action Plan are divided into two categories: Substantial Amendments and Minor Amendments. As amendments occur, both types of amendments are numbered sequentially and posted on the City's CDBG-DR15 website:  
[http://houstontx.gov/housing/2015\\_Flood\\_Events\\_Recovery.html](http://houstontx.gov/housing/2015_Flood_Events_Recovery.html)

Copies of amendments are available upon request to:  
[2015FloodEvents@HoustonTX.gov](mailto:2015FloodEvents@HoustonTX.gov) or 832.394.6200.

#### **a. Substantial Amendment**

The following criteria are used by the City for determining what constitutes a Substantial Amendment to its approved Action Plan.

- A change in program benefit or eligibility criteria
- The addition or deletion of an activity
- A new allocation or reallocation of a more than 25% of an activity on the Budget Page

Substantial Amendments are subject to a citizen participation process and require formal action by the City Council and submission to HUD. The City announces Substantial Amendments to the public through a public notice published in one or more newspapers of general circulation, for a period of fourteen (14) days, in order to provide opportunity for public review and comment regarding proposed Substantial Amendments. Notices will be available in English and may also be available in Spanish and other languages, as feasible. The City will consider all written and/or oral comments or views concerning proposed Substantial Amendments that are received during the comment period. A summary of these comments and views, including comments or views not accepted, and the reason why, along with HCDD's response to each, shall be submitted with each Substantial Amendment.

#### **b. Minor Amendment**

The City is not required to undertake public comment for an Action Plan amendment that is not considered a Substantial Amendment.

### **3. Performance Reports**

The City will submit the Action Plan into HUD's Disaster Recovery Grant Reporting (DRGR) System, where it will include detailed performance metrics and performance schedule. The performance metrics will be based on quarterly expected expenditures and outcomes. DRGR quarterly reports will be posted on the City's CDBG-DR15 website at:

[http://houstontx.gov/housing/2015\\_Flood\\_Events\\_Recovery.html](http://houstontx.gov/housing/2015_Flood_Events_Recovery.html).

Copies of QPRs are available upon request to:  
[2015FloodEvents@HoustonTX.gov](mailto:2015FloodEvents@HoustonTX.gov) or 832.394.6200.

### **C. Public Hearings**

Unlike the *Citizen Participation Plan* for the consolidated planning process, there is no requirement for a public hearing relative to CDBG-DR15. However, if the City holds a public hearing related to this funding, the City will encourage public participation in the following ways.

Public hearings will be held in locations accessible to persons with disabilities, consistent with accessibility and reasonable accommodation requirements. Interpretation for persons with limited English proficiency or persons with hearing impairments will be provided, upon request. HCDD may also provide interpreters, without request, if a public hearing is held where a significant number of non-English speaking residents are expected to participate. Additional accommodations may be made upon advance request.

Public hearings shall be held after a minimum of a fourteen (14) day notice in at least one newspaper of general circulation. Notices will be available in English and may also be available in Spanish and other languages, as feasible.

Public hearings and public meeting notices are posted on the bulletin board at City Hall, readily accessible to the general public at least three (3) days (72 hours) prior to the meeting date, in accordance to the Texas Open Meetings Act.

#### **D. Website**

The City maintains comprehensive disaster recovery website dedicated to information related to CDBG-DR activities. This website has links to

- Action Plan for Disaster Recovery
- Amendments to the Action Plan for Disaster Recovery
- Quarterly Performance Reports (QPRs), as created using the DRGR system
- Procurement policies and procedures
- Executed CDBG-DR15 contracts
- Status of services or goods currently being procured by the grantee

#### **E. Access to Records**

During the term of the grant, the City will provide the public with reasonable and timely access to information and records concerning documents related to CDBG-DR15 and to the use of the City's CDBG-DR15 funds.

#### **F. Application Status**

As applicable, HCDD will provide various methods in which individual applicants for recovery assistance can receive information on the status of their applications. These will be listed on the CDBG-DR15 website, as needed:

[http://houstontx.gov/housing/2015\\_Flood\\_Events\\_Recovery.html](http://houstontx.gov/housing/2015_Flood_Events_Recovery.html).

#### **G. Citizen Complaints**

Written complaints from the public related to this Action Plan (or its amendments), QPRs, or the City's activities or programs funded with CDBG-DR15, will receive careful consideration and will be answered in writing, or other effective method of communication, within fifteen (15) business days, where practicable.

Written complaints should be sent to

Attn: Planning and Grants Management  
City of Houston  
Housing and Community Development Department  
601 Sawyer Street, Suite 400, Houston, Texas 77007